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SOME END-RESULTS OF PEDIATRIC PRACTICE AS SEEN IN ADOLESCENTS

BY ROGER I. LEE, M.D., CAMBRIDGE

THE practice of medicine is oftentimes divided into compartments or segments, and sometimes these subdivisions are again partitioned and even re-partitioned. Not only are there specialties within specialties but there are also specialties which are based on differences in age. I do not intend to go into an elaborate discussion concerning the wisdom, or lack of wisdom, of specialties in medicine; I merely desire to point it out as a fact. Pediatrics is a legitimate and normal child of Internal Medicine. It certainly seems that Pediatrics has outgrown the maternal feeding period and seems quite capable of looking after itself. If one be permitted to carry the simile further, one may venture to express one's personal hope that the future of this vigorous child, Pediatrics, in finding ample and adequate expression might yet be guided, but not dominated by its parent. It seems likely that there may be at the other end of life another specialty, the specialty of old age, or geriatrics. It is possible that there may grow up a specialty of adolescence and a specialty of adult life. It would certainly add to the complexities of life if one had to go through the formidable experience of passing through the professional ministrations of the various specialists who concerned themselves only with one segment of the human existence. I certainly am far from wanting any such arrangement.

It occurred to me, however, that there might be some value in attempting to fit the block of experience which I have had for the past ten years, in Harvard University, upon the block of experience of the pediatrician. Such a simple process is obviously of limited value. The process of fitting together all the blocks of the span of a human lifetime would be of great value in solving some of the really important problems of the betterment of health; but at the moment the available data are inadequate and inaccurate.

I recognize fully the limitations of my own experience. My experience has been with college men. Certainly a definite process of selection and elimination has gone on in the group that makes up a college population. Unfortunately, my remarks must be somewhat general. I have

concerned myself largely with attempts to ascertain the normal standards for the particular group with which I have worked. It is not my intention to recite interesting case histories, but rather to utilize the available mass data to furnish general illustrations. Obviously there are many individual exceptions.

We have in Harvard University certain figures as to the prevalence of wearing glasses. We know that, roughly speaking, about 34 per cent. of boys wear glasses when they enter college and that, roughly speaking, 38 per cent. of boys wear glasses when they leave. We know, furthermore, that when college graduates continue in professional schools, a few per cent. more will require glasses before they graduate. In other words, to one familiar with these figures it is not at all surprising that an increasing number of small children who wear spectacles on the street appears. Furthermore, I may add that ten years ago the figures were considerably lower, and that at that time it was not unusual to discover boys without glasses who not only could not pass the ordinary vision test, but who could not do the necessary reading in the lecture room. The more careful medical supervision of school children and the education of the intelligent laity has been, I think, notably successful in the correction of visual defects.

In 1923 50 per cent. of boys entering the Freshman class had had their tonsils operated upon. This figure has greatly grown during the last ten years, as I think any of us would expect from our personal observation. The size of this figure raises a question in the mind of every thinking individual. For the answer to the question I do not believe that data are yet available. Our experience does furnish us with several general conclusions concerning tonsillec-tomy: (1) There are still tonsils in the unoperated minority which, according to the acid test of causing repeated trouble require, in the opinion of the most conservative, removal. (2) Removal of the tonsils, while often associated in the individual case with less frequent colds, does not seem to afford any particular protection against epidemics of colds, grippé, influenza, or whatever one's fancy chooses to call that well-known but little-understood malady. (3) The college population enjoys a surprising freedom from rheumatic fever, in my opinion relatively greater than the general community. It is easily possible that this freedom from rheumatic fever may be due to the high incidence of tonsillec-tomy. (4) We have been able in this large group to observe the great contrast in the anatomical

results, when we compare the results of earlier operations with the present method of thorough removal. (5) Any operation on the tonsils short of a complete removal is certainly commonly associated with tonsillar difficulties.

If one excludes defects of the eyes, the teeth, posture, and the commonly recognized functional disturbances, we find constantly less than five per cent. of certain organic disease. Obviously, therefore, the problem as a group problem concerns the scrutiny of functional disturbances rather than organic disturbances. As a general introduction I think that I am safe in saying with considerable emphasis that, statistically speaking, the defects in childhood concerning which there is some doubt as to whether they are organic or not, usually turn out to be functional. Perhaps the conspicuous illustration of my meaning in regard to organic and functional disturbances is to be found in the heart and cardio-vascular system. We have found for the past several years somewhat less than 2 per cent. of students with organic heart disease. We have been able to produce murmurs that we at least interpret as functional and not organic in 70 per cent. of these boys. There is considerable reason for dwelling upon this point because it often develops upon questioning that some students have been told that they have damaged hearts, and one often suspects that these students still cherish the thought that they have bad hearts. The conviction that one has a bad heart is particularly dear in one's moments of melancholy. It is perfectly true that there is much need of a further check-up in the later years of life before these dictums of our segmental experience can be fully accepted. We have had on our observation lists many boys concerning the soundness of whose hearts there has been some doubt in the mind of parent, family physician or ourselves. It is, of course, our policy never to allow a student with a certain cardiac lesion, no matter how trifling, to participate in any form of strenuous competitive athletics. We permit students with questionable hearts to participate in athletics under close supervision. It is of interest that the disturbing signs, such as easily audible murmurs, irregularities, tachycardias and hypertensions, show a well-defined tendency to disappear during the four years of college life. Confirming our general views that these so-called suspicious hearts are essentially functional in nature, we find not infrequently a disturbance with cardio-vascular manifestations which can be likened to the effort syndrome so frequently met with in medical observations of soldiers. As in the case of soldiers, there is often clear evidence of the actual inability of the individual to perform strenuous physical tasks. Under physical strain definite dyspnea, palpitation, and precordial pain are often marked. The condition, perhaps best though rather unsatisfactorily designated as effort syndrome, frequently follows illness, periods

of rapid growth, or worry. We are clear that such individuals should be eliminated from competitive athletics, but should be encouraged to continue some form of supervised exercise. In our opinion it is of great importance to insist that the heart is sound and that the fault lies in the general condition. The relative frequency of effort syndrome and of a somewhat kindred condition, athletic staleness, and particularly the earlier history of these and other cases make us believe that these conditions are much more frequent in the age period immediately preceding college. Consequently, on these grounds rather than on the grounds of possible actual organic damage to the heart, we are inclined to view with some alarm the tremendous growth of highly organized competitive athletics without careful medical supervision in the preparatory schools. We are also clear that an undue emphasis on the heart as a possibly damaged organ is both unjustifiable and likely to be attended with unfortunate temperamental disturbances. In general, I am prepared to urge on the basis of our experience that optimism as well as observation be prescribed for many of these juvenile hearts. Certainly I do not believe anyone would seriously consider that 70 per cent. of college students have heart disease.

Few physicians nowadays take seriously temporary tachycardias, sinus arrhythmias and temporary variations in blood pressure. We are undertaking certain studies suggested by Dr. H. M. Frost in regard to the blood pressure. The ease with which a systolic blood pressure may be altered by a relatively simple procedure from a normal of about 120 mm. of Hg to below 90 or above 150 confirms this opinion. Certainly, if one can alter the systolic pressure within such a wide range with such a simple procedure as holding the breath, one cannot but expect alterations in blood pressure due to other factors.

Our experience with albumin in the urine is another case in point. We find that 7 per cent. of our Freshmen have albumin in the urine. Nevertheless, it is an unfortunately common experience that some boy comes to college not only with a restricted diet and restricted activities, but with a trend towards considerable introspection because some eminent physician has not understood the significance of function albuminuria, or at least our views of that condition.

Such functional disturbances, of course, occur in every physiological system. We are all familiar with the difficult problem of nutrition. We may omit any discussion of the arbitrary standard based on age, height, and weight, beyond stating that we are attempting to bring into consideration the factor of physical type. In a large sense disturbances of nutrition certainly indicate a thorough search for defects, functional or organic, that may be the underlying cause. I take it that there is a considerable tendency in sound pediatric practice to scrutinize

particularly the possibility of tubercular infection. Such a tendency has ample justification in the pathological findings of the existence of tuberculosis in a large percentage of children. The percentage in which we have been able to detect positive or even suspicious signs of tuberculosis has always been low, under 1 per cent. This low percentage has given us grave concern. Consequently, we have studied carefully the incidence of tuberculosis in the college population. It has been of considerable comfort that the occurrence of active tuberculosis during college residence is so small as to be almost negligible statistically. In other words, in the particular segment of life under discussion there is no important tendency for the development of active tuberculosis. However, in the age group represented in the Graduate Schools there is a notable increase in the tendency to develop tuberculosis. This tendency is somewhat reflected in the figures of our physical examinations. Our studies, however, do not permit of further generalizations. As we find the problem of nutrition, it concerns rather more obvious errors of general hygiene, perhaps more particularly insufficient sleep and irregular habits of eating, than it does insufficient amounts of food.

With increasing experience we tend to emphasize the rôle of the nervous system in the various disturbances that come under our observation. For example, it seems probable that the origin of the condition known as effort syndrome is in the nervous system. The manifestations of nervous disturbances—to use a very poor term—are manifold and concern any physiological system. The real cause of these disturbances of the nervous system is truly perplexing. In many instances there is a well-defined family tendency. Of recent years it is the fashion to point an accusing finger towards the sex impulse. I certainly make no pretense of possessing any large amount of accurate data on this subject. We have been concerned, however, in trying to find out something about the ordinary sex life of ordinary college men. It may suffice to define "ordinary" as a young man who gets along not only with himself but with his friends and his work without undue trouble. The average normal of sex experiences of all kinds varies widely. Certainly some young men have striking sex experiences without disturbing their emotional calm, although similar experiences are often exultantly exhibited as positive proof of the sexual origin of a variety of nervous disturbances. It seems reasonably certain that a small fraction of boys, from 10-20 per cent., escape any habit of sex perversion, but that the others have practiced this habit at some time before they come to college. It would seem to be true that most attempts to teach sex education in any form or fashion are not uniformly successful. It is certainly my impression that such education should be largely individual. It is furthermore my impression that this education

is ordinarily neglected. It is my strong impression that most cases of sex perversion, and certainly the most serious cases, originate long before the college age. The abysmal, even though refreshing, ignorance of sex of many young men adds greatly to the difficulty of the problem. In my humble opinion, the situation requires more attention from the general practitioner and pediatrician.

I trust that the Society will pardon me if I attempt to preach a little, particularly as I have little precise data to back up my argument. Strong a believer as I am in careful medical supervision of schools, in medical control of athletics and games, and in repeated physical examinations, I think that sometimes medical supervision can be carried to excess. Certainly we see individual students, whose total number is considerable, who belong to this group of individuals who seem to have been harmed by excessive attention to health. Often there are valid reasons. The son is an only child. Perhaps as child the student had a severe illness. Of course there are certain students who have conditions that make them exceptional cases. However, one is strongly impressed with the value of the training that comes with the association with other boys under ordinary normal conditions, and certainly one is also impressed with the results of the lack of that kind of training. Some students resemble very much patients who have been away to a tuberculosis sanitarium and who have had the disease arrested. These ex-tuberculosis patients are fat and ruddy, they seem quite well, but they still have the problem of adjusting themselves to the actual world. Some students have a very definite fear that something may start up some old trouble, and too often it happens that the old trouble is of no significance. I am personally persuaded that it is sometimes not necessary to deprive the boy of too much of the fullness of life. I am quite convinced as to the importance of group training for young men. By that I do not mean any particular system, but rather the training that a boy gets in the usual daily application to tasks, mental and physical. As an illustration of that from a physical point of view, one can note a considerable number of athletes that come from certain schools and the dearth of athletes that come from other schools. A sounder argument is found in the fact that when we scrutinize how these boys stand and use their bodies, which of course is done without any regard as to what school the boys come from, the percentage of boys that have good posture is very much over the average in those schools that have some form of physical training and encourage athletics under supervision, and very much under the average in those schools which have no form of physical training and do not encourage athletics. Personally, my experience leads me to believe that in childhood and in the preparatory school it is perhaps wise to hazard

something in order that a boy may "run with the pack." The compensations of nature are quite extraordinary, and one recalls easily certain boys with infantile paralysis who have been able to row on the crew. As a matter of fact, the percentage of varsity oarsmen in students with infantile paralysis is higher than it is in the student body at large. I do not mean to suggest a return to a Spartan policy of the survival of the fittest. I merely want to point out a possible danger. Furthermore, our experience with adolescents justifies an optimistic rather than a pessimistic view towards some of the problems of the pediatrician.

DISCUSSION

DR. TALBOT, Boston: I was much interested in everything that Dr. Lee has said. I was thinking just what happens to the children after they leave the pediatrician. So far as my experience is concerned, this is the first time I have heard a paper that would give me any knowledge of what happened to any of the patients that we have taken care of in the past. I think the points which he has brought out are extremely valuable and should help us pediatricians in trying to correct these defects.

DR. MORSE, Boston: Dr. Lee has discussed the subject very well. Dr. Talbot will see what happens to his patients if he lives long enough.

FOREIGN BODIES IN THE LARYNX, TRACHEA AND BRONCHI

BY D. C. GREENE, M.D., BOSTON

In the records of the Surgical Department of the Massachusetts General Hospital for 1898, we find that on May 11th a man was admitted to the hospital on Dr. J. Collins Warren's service, suffering from dyspnea. The case was one of chronic laryngeal stenosis for the relief of which the patient had for some time been wearing a vulcanized rubber tracheal tube. The tube had broken off from its shield and slipped down into the trachea out of sight. X-ray plates did not show it. The case was referred to Dr. Algernon Coolidge, Jr., of the Throat Department, who under ether anesthesia enlarged the tracheal opening, introduced a urethral speculum into the trachea and, with the aid of sunlight reflected from a head mirror, located the tracheal tube in the right primary bronchus, its upper end being one-half inch below the bifurcation, and extracted it with alligator forceps.

This case was, I believe, the first recorded one of bronchoscopy for extraction of a foreign body in the bronchial tree in this country. A few years previous to this, Killian of Freiburg had already performed bronchoscopy, at first through a tracheal opening and later through

the mouth. To him is, therefore, due the credit of thus extending the field of laryngology in the diagnosis and treatment, not only of foreign bodies, but of pathological conditions. In the twenty-five years since the beginning of this method there have been devised a multiplicity of instruments for inspection and operative treatment of the lower air passages. The field is one which lends itself to the expression of the inventive genius which delights in the solution of mechanical problems. The leader, and most expert in this work in this country is, as you know, Dr. Chevalier Jackson of Philadelphia. I do not propose in this paper to describe the instrumentation and technique, but will endeavor to bring out some points which are of importance in the diagnosis and successful management of cases of foreign bodies lodged in the larynx, trachea and bronchi.

It is obvious that the operation of bronchoscopy should be conducted with the minimum amount of trauma, and in the shortest possible time, since either trauma or prolonged manipulation may lead to serious results. It is, therefore, important for the operator to obtain, beforehand, all the data possible which will assist in identifying the nature, location and position of the foreign body. Such data may be obtained from the history, from the physical examination, and from the use of the x-ray. In some instances, one or the other of these sources of information may be of only negative value, as in the following case of a glass bead in the trachea, which I recently saw! A two-year-old child suddenly developed stridorous respiration. It was said to have been playing with three objects, any one of which might have been inhaled and caused the obstruction to breathing. These were a tin whistle, a wooden marble, and a glass bead. They were all missing. X-rays showed no foreign body. While this was of value in excluding the tin whistle, it did not help in locating the foreign body, or assist in determining whether it was the wooden marble or the glass bead, since neither of these is opaque to the x-ray. Observation of the respiration did, however, give a definite indication of the location of the object. It was noticed that with each expiration there was an audible thud as of a moving object coming up against a definite obstruction. This sound, heard best over the trachea, is characteristic of a loose object in the trachea, and the thud is produced by its impact against the glottis. I was, therefore, prepared to find the foreign body in the trachea and, on laryngoscopy, could see a rounded pink object appear at the glottis with each expiration and disappear with each inspiration. The extraction was accomplished without special difficulty, by introducing the grasping forceps between the chords into the upper trachea, opening the blades widely during inspiration and

closing them on the bead as it came up on the next expiration.

In the physical examination, the type of dyspnea, whether predominantly inspiratory or expiratory, is of significance, since obstruction at or above the level of the vocal chords produces inspiratory dyspnea, whereas obstruction below the glottis produces dyspnea of the expiratory type. If the foreign body is within the larynx, we find, in addition to the characteristic breathing, disturbance of the voice, which may range from moderate hoarseness to aphonia.

Cough always occurs at the time of the intrusion of the foreign body whether it becomes lodged in the larynx, trachea or bronchi, but if it becomes impacted or fixed in one spot, the cough usually disappears shortly and does not recur until the inflammatory disturbances, caused by its presence, have set in. A non-obstructing object, such as a pin or a nail, may thus be lodged for a considerable time without causing any suspicion of its presence until, finally, it gives rise to a bronchitis; a search for the cause of which, by examination of the chest and x-ray, will lead to its detection.

The physical signs of a foreign body lodged in a bronchus depend on whether it is obstructive or non-obstructive and on the length of time it has been present.

As emphasized by McCrae and Jackson, the most constant sign is limitation of chest expansion on the affected side. This is observed even in cases in which a non-obstructive object, such as a small, straight pin, is present in a bronchus, but the degree of limitation is more marked if the bronchus is obstructed. The breath sounds on the affected side are diminished or absent, according to the degree of obstruction. If the obstruction is partial, the air passes in more readily than it passes out and there results a dilatation of the lung on the affected side, which gives a tympanitic note on percussion. In general, the physical signs indicate a restriction to the passage of air beyond the point of obstruction, and the trained internist can usually locate this point with considerable accuracy.

In the course of a few weeks or months, the retained foreign body sets up a purulent bronchitis or abscess. This occurs more certainly and more quickly in cases of vegetable or animal bodies, such as nuts, beans or lymphoid tissue of tonsils or adenoids inspired during operation. It is not necessary to review the signs of pulmonary abscess and bronchiectasis, but I wish to emphasize the important part that foreign bodies play in the etiology of these conditions.

The x-ray is of value in the diagnosis, even when the foreign body is not opaque to the x-ray. Iglaue first made the observation that in cases in which there is complete expiratory

obstruction, with only partial inspiratory obstruction, the x-ray will show a greater transparency on the affected side, a displacement of the heart to the free side, and a depression and flattening of the dome of the diaphragm on the affected side. Complete bronchial obstruction, on the other hand, will soon show a density over the entire area from which the air supply has been cut off. It is always best to have both frontal and lateral plates of the chest taken to more accurately locate the object. Sometimes it will be more readily seen in one than in the other. This is also of value in determining the position of an abscess cavity and the extent of the inflammatory reaction around it.

Having secured, by means of the history, the physical examination and the x-ray, a fairly clear notion of the problem before him, the bronchoscopist is ready to proceed with the extraction of the foreign body. In these days tracheotomy is seldom necessary. Usually the larynx is exposed with the laryngeal speculum and the bronchoscope introduced under direct vision, between the chords, into the trachea; but in one type of case it is advisable to open the trachea immediately, namely, one in which a large, distensible body, such as a bean or a peanut kernel, is in the trachea and causing much dyspnea. In such a case one is likely to lose valuable time in attempting to remove the bean through the mouth, and it is best to do a rapid tracheotomy and extract through the wound.

A case of this sort was brought into the Children's Hospital about 10 years ago, suffocating and unconscious. The child was rushed to the operating-room, but respiration had stopped by the time she was placed on the operating-table. I did a hurried tracheotomy, introduced grasping forceps into the trachea, blindly closed them on the bean and withdrew it intact. This bean was not added to our collection of foreign bodies at the hospital, but was surreptitiously removed by the assistant and planted next spring in his garden, where it developed into a healthy plant and produced many beans.

The question of anesthesia in this work is a debated one: As you know, Jackson almost never employs general anesthesia, and in children not even local anesthesia. In my judgment, the average operator can do better work, with less trauma to the patient, with a general anesthetic, excepting in cases of marked dyspnea. A well-conducted rectal anesthesia gives almost ideal working conditions, without embarrassment of respiration which is excited by the administration of ether by mouth. I must, however, confess to one fatality directly due to this method,—a case in which the anesthetist gave an overdose of ether and the child died without recovering consciousness after the operation. In this case, the extraction of a tack from a bronchus was done in five minutes without any

trauma. I have had no other unfavorable results which could be attributed to the anesthetic. If a foreign body can be located with the bronchoscope visually, it is almost always possible in these days to extract it, owing to the variety and scope of instruments devised by Jackson and others, to meet all sorts of mechanical difficulties. Even in the case of a body lodged in a superior lobe bronchus, it is possible, with the aid of the fluoroscope and Jackson's specially devised upper lobe extracting forceps, to gain access to it and extract it.

DISCUSSION

DR. PLACE, Boston: The history of a foreign body is not always present. Dr. Greene has mentioned the fact that these patients with foreign bodies do not come to the doctor saying that they have a foreign body in them. I have been surprised at the number of foreign bodies that are recovered. We see cases where the foreign body is perfectly clear. I think in the management of ordinary laryngeal stenoses a routine examination for a foreign body is of great value.

I remember a child, one year of age, who came to the South Department with laryngeal diphtheria. I saw the child and intubed him. He recovered and went home perfectly well. At the end of a month he had a typical attack of laryngeal stenosis which came on at 8 o'clock. He grew gradually worse and breathing became difficult, so he was admitted to the hospital. In the history first given by his own nurse, who took care of him, he had a cough and definite stenosis, which grew worse. The boy on entrance had a husky voice and a croupy cough. We found that he had a safety pin in his larynx. It was easily removed and the patient got immediate relief.

INDICATIONS AND CONTRAINDICATIONS FOR CIRCUMCISION IN CHILDREN

BY THOMAS H. LANMAN, M.D., BOSTON

ONE of the most common operations performed at the Surgical Out-Patient Clinic of the Children's Hospital is circumcision. Practically all of the patients so operated on are referred to the clinic by either the family physician, the pediatrician in charge of a Baby Hygiene Station, or a physician in another department of the Out-Patient. The few remaining cases are brought in because the mother, practically never the father, thinks, or has been told by friends, that the boy "needs a circumcision." Practically all of these cases are under three years of age, the great majority being two years old or younger.

Circumcision has been advised in most cases

for one of three reasons: *First*, a long redundant foreskin, with or without preputial adhesions. *Second*, a varying degree of irritation about the genitalia, especially the foreskin. *Third*, a varying degree of balanitis.

Other less common reasons assigned as an indication for circumcision are enuresis, masturbation, and "nervousness." I wish to analyze briefly the reasons just stated, and attempt to show which are absolute indications for circumcision, which are doubtful, and lastly those that are definitely contraindications.

In the first class of cases, those in which the foreskin is long and adherent, there is usually no absolute indication for circumcision, because by proper technique the preputial adhesions can be broken up, and the foreskin retracted. Once this is done, proper daily toilet of the foreskin may be carried out. If the opening of the foreskin be small it can usually be dilated with a hemostat until wide enough to permit retraction. If this cannot be done, and a true phimosis exists, it is usually advisable to postpone operation until the age of wearing diapers is past. The reasons for postponing operation I shall speak of later.

There is one type of case, in this class, that should be especially mentioned here because it is the sort for which circumcision is inadvisable. It is that in which the boy has a very small penis and a large pad of suprapubic fat. After circumcising a boy of this type the glans retracts into the pad of suprapubic fat, and post-operative care and cleanliness is made very difficult. Extreme cases present the appearance of an umbilical polyp, and this is very alarming to the parents. Certainly in this type, operation should be postponed until there is further growth of the penis itself, and a receding in amount of the suprapubic fat.

The second class of cases—those that show a varying degree of irritation about the foreskin and genitalia—is the largest and, to my mind, the one most deserving of discussion. Practically all of these cases are referred for circumcision because of this irritated condition of the skin. In my opinion, this condition is a contraindication to circumcision in a very large number of cases. It is becoming more and more evident to me that we are dealing with the lesions caused by the so-called "ammoniacal diaper" in a very large per cent. of these cases.

The lesions caused by the ammoniacal diaper are a definite clinical entity and are worthy of description because they have only recently been discussed in the literature from the point of view of etiology, and treatment based on a known etiology. Also, a disregard of the causative factor of these lesions leads often to distressing and troublesome, though not serious complications, if circumcision be inadvisedly performed for their relief.

These lesions are familiar to all pediatricians. The mild cases present a diffuse erythema of the

genitals and adjacent skin. It is especially marked in the concave surfaces, and does not as a rule appear in the skin folds, but rather on the surfaces that come in close contact with the diaper—a fact which is strong clinical evidence in favor of the causative agent being the diaper itself. More severe types show vesicles that may become ulcerated and eroded. This is especially likely to occur on the foreskin. The ammoniacal odor is noticed only when the diapers have been wet for some hours, and the history of an ammoniacal odor is usually obtained in reference to the morning change of diapers. The odor may be constant, though usually it is noticed more markedly in the morning, or only in the morning.

Zahorsky described this condition, which he found commonest in artificially fed children during the second year of life. He stated that the lesions were not caused by the urine itself, but by the liberation of free ammonia from the urine by some agent in the diaper. He believed that the alkali remaining in the diaper after washing them with certain soaps was the causative agent, and also gave the possibility of alkaline stools as a factor.

Brennemann, in a more recent article, calls attention to the relation of the ammoniacal diaper to the ulcerations and crusting of the urinary meatus in the circumcised child. This condition we have seen very frequently, and in going over a fairly large number of cases it is only too clear that we have done a circumcision for the very reason that later caused the same lesion to appear at the meatus. The only difference to be noticed in the lesion appearing after circumcision in these cases is that it is more severe and, because of its location at the meatus, causes a crusting and narrowing that will sometimes result in urinary retention. This retention is due to the pain the child experiences on voiding, and leads him to void as infrequently as possible. In other words, circumcision in these cases may greatly aggravate the symptoms, for we are merely exposing a far more sensitive field, the mucous membrane of the meatus and glans itself, to the same irritating ammonia that caused the comparatively tough skin of the prepuce to become inflamed. Then, too, these cases are often inadvisedly dilated with bougies to overcome the apparent narrowing of the meatus. This procedure, of course, serves only to expose a still larger raw and bleeding surface to the ammonia.

That this so-called ammoniacal diaper has not been recognized by the surgeon as a contraindication to circumcision is clear. That the physician and pediatrician are also sometimes at fault is clear when we consider the third class of cases that are referred for circumcision, namely, those in which there has been a varying degree of balanitis. Now a true balanitis, such as is due to the gonococcus, is an absolute indication for a dorsal slit, and a subsequent circum-

cision if there be any marked degree of phimosis. I have looked up all the Out-Patient records for the past five years that were filed under the diagnosis of balanitis. There were only 38 cases, 26 of which were under two and a half years of age. Of these 26, 14, or more than half, gave a clear and unmistakable history of ammoniacal diaper. Following the circumcision of these 14, 8, or more than half, had the lesions appear anew at the meatus. Four other cases, filed as balanitis, had already been circumcised and presented the typical ulcerated and crusted meatus described by Brennemann. The fact that over one-half of these diagnoses of balanitis were made first by the Medical Out-Patient Department of our Hospital and then referred to the Surgical Department, makes me wish to share the blame with them. We both have erred in not recognizing the true etiological factor. The remaining eight cases of balanitis were apparently due to a real infection beneath the foreskin. In only two cases was it necessary to do a dorsal slit. The others rapidly cleared up by means of boric acid solution dressings.

Out of over 57,000 new cases admitted to the Out-Patient Department in five years, only 38 have been diagnosed as having a balanitis, and in 14 of these 38 the etiological factor causing the balanitis was not recognized. In only two cases was a dorsal slit done in children of the diaper-wearing age. It would seem, then, that the absolute indication for circumcision in children during the first three years of life is very rare. In private practice it should be almost negligible.

Cooke seems to have definitely proved that the real etiological factor in the lesions caused by ammonia from the urine is the presence of an urea-splitting organism in the stools. This organism is a gram-positive bacillus which he calls *Bacillus ammoniagenes*. He isolated this organism in all his cases and showed that it acted on the urea in the urine on the diaper to form free ammonia. The organism is a saprophyte, and he showed by controls that it was the ammonia liberated by this organism, and not the organism itself, that caused the lesion. He found that the presence of an alkali, either in the stools or the diaper, was necessary for the action of the organism in producing ammonia. The organism grows readily at 30° C. and also grows faster in alkaline or neutral stools. This fact would explain the partial success obtained by dietary measures for the relief of the condition. Cooke believes the most efficient way of treating this condition is by preventing the action of this organism by treating the diaper and not the child. He advises, in addition to greater care in washing and rinsing the diapers, that they be soaked also in a solution of mercuric chloride 1-10,000, or boric acid solution 1-20, then wrung out and allowed to dry. His views are well supported by clinical evidence. Previous writers have attacked the problem from the dietetic side,

with only partial success. We have for a long time noted the good results obtained by boric solution dressings. Cooke has given a sound basis for our empirical treatment. His article is well worth reading by all pediatricians. His conclusions are well supported by careful laboratory evidence both in those cases treated as above and by controls. Especially convincing is the fact that the clinical evidence is all in support of his theory.

Before summing up the situation, let me discuss the less frequent reasons for advising circumcision:

First, enuresis. I think most of us agree that circumcision is of questionable value in overcoming this condition. The problem is best attacked by training the child along methods so well known as to need no discussion here. We feel that appealing to the boy's pride is far better than threats or holding him up to ridicule. One form of mild punishment I have found useful, that of making the boy wash the night clothes after bed-wetting. One point we lay great stress on to the boy himself,—if he can go one night without wetting he can go two; if two, three; if three, a week; and if a week, always.

Between the ages of three and five there is a type that, in addition to enuresis, shows irritation about the foreskin. In these cases, be sure that the lesion is not caused by ammonia even though no diapers be worn. For if so, it is the enuresis that causes the irritation, and not the irritation that causes the enuresis, and circumcision is distinctly of no avail.

Masturbation is often given as the reason for circumcision. In young children I think this diagnosis is often loosely made. Mere handling of the genitalia from time to time is not masturbation. If these cases are observed closely, the cause of the handling of the parts is generally a lack of cleanliness beneath the foreskin, and a certain number show a mild degree of ammonia irritation. These causes can practically always be eliminated without circumcision.

In older children with a long foreskin, with preputial adhesions and some phimosis, there is often an irritative condition beneath the foreskin. This irritative condition starts a vicious circle. The greater the irritation the oftener the child seeks relief by handling the penis. Here circumcision is unquestionably indicated, in part to remove the irritation but more particularly, in my mind, to make a sharp and extended break in the boy's seeking relief by handling the penis. The ten days of local tenderness following circumcision provide that break, and after this period especial care is required by parents to prevent the resumption of the habit. The older the child, the more efficiently he may be reasoned with.

I think most of us agree that there is always some other factor than preputial adhesions that cause the so-called "nervous child." The deci-

sion as regards circumcision in these cases should be made by the physician after a careful study of the case.

In conclusion, it seems to me that the absolute indication for circumcision in children of the diaper-wearing age is exceedingly rare, and with proper regard for the breaking-up of preputial adhesions, and then daily cleanliness, it should be negligible.

I would again call attention to the skin lesions caused by the ammoniacal diaper, as this is still a very frequent reason given for advising circumcision. I think it is now definitely proved to be a contraindication for operation at this time.

Circumcision is often desired by the parents, and advised by the physician on the grounds that it will have to be done eventually, so why not now. I agree heartily that circumcision in many cases is eventually advisable, but I believe that we should bear in mind that its urgency is very questionable, as shown by the great rarity of serious trouble occurring during the diaper-wearing age. On the other hand, we should also bear in mind that the giving of a general anesthetic for an operation of choice is not devoid of danger to the infant or young child. I refer, of course, especially to the upper respiratory infections and their complications so common in this climate. As of less importance, we should remember that the ammoniacal diaper may produce more serious lesions in the circumcised child than in the uncircumcised. I would ask, then, for a more careful consideration on the part of both physician and surgeon of the question of circumcision in children of the diaper-wearing age.

In older children I think it distinctly advisable to circumcise those boys with a long, redundant prepuce, especially if there be any degree of phimosis. It is certainly a great aid to proper cleanliness, and undoubtedly may prevent serious complications in later life. The ideal time, then, in my opinion is some time after they have ceased to wear diapers, and before they go to school. Certainly the post-operative care is far easier and better if the boy can control his urination.

REFERENCES

- 1 Zahorsky: The Ammoniacal Diaper in Infants and Young Children. *Am. Jour. Dis. Child.*, Vol. 10, p. 436.
- 2 Breunemann: The Ulcerated Meatus in the Circumcised Child. *Am. Jour. Dis. Child.*, Vol. 21, p. 38.
- 3 Cooke: Etiology and Treatment of Ammonia Dermatitis of the Gluteal Region in Infants. *Am. Jour. Dis. Child.*, Vol. 22, p. 481.

DISCUSSION

DR. CROTHERS, Boston: I do not know that I have anything very important to say on the subject. There is one thing, however, I wish we could get some sane discussion of, and that is the question of masturbation. The literature is full of information on this subject, but it is expressed in an obscure way. Many men have got the idea across that this masturbation problem is one of the main problems of life at present.

Original Articles

PLACENTA PREVIA AT THE BOSTON CITY HOSPITAL

BY FREDERICK J. LYNCH, M.D., BOSTON

[From the Gynaecological and Obstetrical Service of the Boston City Hospital.]

PLACENTA PREVIA exists when part of the placenta is attached to the lower uterine segment. When dilatation of this portion of the uterus takes place, part of the placenta is separated and hemorrhage follows.

Three types are usually described: complete, partial and marginal. In the complete type the placenta covers the whole of the internal os; in the partial previa, the amniotic sac and presenting part can be felt at one side of the placenta; and the marginal variety are those in which the edge of the placenta is exposed and separated as the cervical dilatation progresses.

No definite etiology is known, but in all probability conditions which contribute to a chronic endometritis are the basic cause for the condition. Thus it is stated to occur frequently in chronically subinvolved uteri following rapidly succeeding pregnancies; in women who have borne many children, and in association with uterine tumors. In these uteri, due to the impoverished condition of the endometrium, the placenta must spread out to get the proper amount of nourishment for the foetus and in this manner encroaches upon the lower uterine segment and internal os. For the same reason, the condition is frequently seen in multiple pregnancy because of the large or multiple placentae. Abnormally low position of the Fallopian tubes and unusually large uteri are also believed to be etiologic factors.

The frequency of the condition is a difficult matter to estimate. Hospitals conducting emergency obstetrical services are obviously going to see more cases of placenta previa than would occur in an equal number of privately conducted cases. The condition is variously stated to be in the proportion of 1 to 300 to 1 to 1000. In the Boston City Hospital in the past ten years it has been about 1 to 100.

Bleeding in the last trimester is usually due to placental separation, either of the normally inserted placenta-*ablatio placenta* or the abnormally situated organ, placenta previa. Other less common causes of bleeding at this time are cervical polyp, vaginal varix, and malignancy. The condition may occur from the third month of gestation until at term but most frequently is seen in the last month. The condition usually begins gradually and increases, but the initial symptom may be a flooding which results in a marked anemia or death. The not uncommon story we get from patients of slight staining, particularly at the time the period would ordinarily occur, is probably due to a very slight

separation of a normally situated placenta. The so-called cases of menstruation during pregnancy are the result of a small separation in a low-implanted placenta, because after the decidua vera and capsularis fuse, at about the fourth month, menstruation is impossible. However, every instance of antepartum bleeding should be viewed with suspicion and the cause of the flowing accurately ascertained.

The diagnosis usually lies among three conditions: ruptured uterus, separation of a normally implanted placenta, and placenta previa. Ruptured uterus usually follows a long and difficult labor, a contraction ring may be felt, there may be extreme tenderness over the pubes, the foetus may be palpated with great ease due to its escape into the abdominal cavity, recession of the presenting part, and the patient in collapse out of proportion to the amount of blood lost.

In separation of the normally implanted placenta, vaginal examination shows no departure from normal. The other symptoms of this condition will help to make the diagnosis, *viz.*, continued painful contracture of the uterus, inability to palpate foetal outlines, doughy feel to uterus, and absent foetal heart sounds. The diagnosis of placenta previa is made by feeling the placenta through the cervix.

Examination of a suspected case of placenta previa should be made in a well-equipped hospital and the examiner should have the necessary assistance and equipment at hand to deliver the patient immediately if necessary, by any means which he sees fit, be it instrumentation, bagging, or Caesarian section.

The diagnosis of placenta previa having been made, the question of treatment arises, and this is generally accepted as being immediate delivery. It may in some instances be justifiable to palliate if a woman has bled but little, has a baby within a short period of viability and is in a well-equipped maternity hospital where she can be immediately delivered if untoward symptoms arise. Also the case in shock and collapse is probably better treated for that condition before active measures are taken to empty the uterus.

Delivery having been decided upon, the method of delivery which will serve the best interests of the mother and baby is the all-important problem, and it was with this end in view that the results of the treatment of placenta previa at the Boston City Hospital during the last twenty years were tabulated. During that period there have been ninety-two cases of placenta previa. Of this number there were twenty-six of the complete variety, thirty-seven partial, and twenty-nine marginal previas. There were seven primiparae, twenty para two, thirteen para three, fifteen para four, nine para five, ten para six, six para seven, four para eight, three para nine, one para ten, one para twelve, three para fifteen. Thus, in considering parity, the most frequent were para two, four and three. This does not correspond with the commonly ac-

cepted belief that multiparity is a causative factor in this condition.

The average age was thirty-one years; the oldest was forty-two and the youngest patient was eighteen years.

The period of gestation was in seven cases five months, in twelve cases six months, in twenty cases seven months, in thirty-four cases eight months, and at term in eighteen cases.

Of the ninety-one cases, nineteen mothers died, a gross mortality of twenty per cent. This includes patients who were delivered outside the hospital, and those practically moribund at the time of entrance. Fifty-one babies were born dead, or died before leaving the hospital, making a gross foetal mortality of fifty-five per cent. Of this number twenty-six were non-viable and two were macerated foetuses, making a corrected foetal mortality of twenty-five per cent.

The methods of delivery were as follows:

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Of the forty-three cases delivered by manual dilatation of the cervix, fifteen died, a maternal mortality of thirty-five per cent. Twenty-eight babies died, of which fifteen were non-viable, making a corrected foetal mortality of thirty per cent.

Of twenty-three cases treated by a hydrostatic bag, no mother died. Sixteen babies died, of which ten were non-viable, and one a macerated foetus, a corrected foetal mortality of twenty-two per cent.

The Braxton-Hicks version was resorted to in four cases, with four mothers and one baby discharged well. The three babies that died were of a non-viable age. Therefore, no maternal or viable foetal death.

Six cases were delivered by Caesarian section with no maternal mortality, and one foetal death due to hemorrhagic disease of the new born, a foetal mortality of seventeen per cent.

Of the cases treated by packing the lower uterine segment and vagina, of which there were six, three mothers died, making a maternal mortality of fifty per cent. Five babies died, four of which were non-viable, making a corrected foetal mortality of seventeen per cent.

In those cases of marginal previa treated by rupturing of membranes, all mothers and babies were discharged well.

Of the two vaginal Caesarian cases, both mothers were discharged well. One case had been bagged, and after the bag remained *in situ* thirty-six hours without starting labor, a vaginal

Caesarian was done. The baby proved to be a macerated foetus. No maternal or viable foetal mortality.

In the two cases of multiple incisions of cervix, both mothers were discharged well. Both babies died, one of which was of a viable age, making a foetal mortality of fifty per cent.

In considering the incidence of sepsis, any case which had a temperature of 101° for two days was reported as a septic case.

There were eleven cases of accouchement forcé septic, twenty-five per cent.; two bagged cases were septic, eight per cent.; Braxton-Hicks version, no sepsis; Caesarian section, one case septic, seventeen per cent.; packing lower uterine segment and vagina, five cases septic, eighty-three per cent.; rupture of membranes, no sepsis; vaginal Caesarian section, both cases septic, one hundred per cent.; multiple incisions of cervix, one case septic, fifty per cent.

From the foregoing statistics it is immediately apparent that accouchement forcé in this series of cases, besides being the most frequent method of handling the condition, was likewise the one fraught with most danger to the mother and baby. The reason for this is that the placenta being inserted in the lower uterine segment makes this portion of the uterus much thinned out and very friable. Any attempt to dilate this tissue at all rapidly, results not in dilatation, but in cervical tears which involve the lower uterine segment. This part of the uterus in placenta previa is abnormally vascular, due to the fact that it is the placental site and, when torn, results in profuse hemorrhage. This bleeding and the accompanying shock of the ruptured uterus, when superimposed on the already blood-out condition of the patient, is frequently sufficient to cause her death. In several of the cases in this series which were treated by accouchement forcé and survived, the cervix was torn badly enough to require suturing, and one which showed immediate symptoms of ruptured uterus and collapse, was opened up abdominally and a rent in the broad ligament repaired.

The Voorhees bag, which has been frequently used in the past ten years, has given the best results for the mother and baby. The bag used should be chosen with the idea of being just larger than the baby's head. It may be inserted either intraovularly, *viz.*, through the membranes and placenta, and sit on top of that organ, or extraovularly, that is, just inside the cervix between the placenta and cervix. The latter is preferable for two reasons: first, that it is easier; and second, that it applies the pressure to the bleeding surface—the exposed uterine sinuses. One would naturally expect that this separation of the placenta from the uterine wall by the bag would increase the chance of foetal asphyxia. While it probably does cause a temporary embarrassment of foetal oxygenation, the fact that the placenta in this condition covers such a large area makes the part separated by

the bag relatively small and not enough to cause complete asphyxia.

The Braxton-Hicks operation gives the baby a poorer chance than any other method of delivery, and should be properly used only in cases where the baby is non-viable. In a vertex presentation, one of the baby's feet should be brought down through the degree of dilatation present by pushing the head up toward the fundus, with both the internal and external hand, and using the placental forceps to grasp the foot if necessary. The version having been completed, the leg and thigh should be pulled through the cervix, and slight traction continued by means of a two-pound weight attached with a piece of tape to the foot. In this way the baby's thigh and buttocks exert a pressure on the placenta and lower uterine segment, thus controlling the hemorrhage. *The rest of the dilatation should be left to nature and accomplished by uterine contractions*—not as is frequently done, by continuing the extraction until the baby is born. In four of the cases in this series, written up in the records as the Braxton-Hicks operation, immediate extraction was performed. These cases have been classed with the accouchement forcé operation, for it makes no difference if the cervix is "dilated" immediately with the hand or with the baby's body and head—the end-results as far as the cervix is concerned are the same.

In a certain few instances, Caesarian section is the method of choice of delivery. Of course, a patient with placenta previa may also have a justo-minor pelvis, but it should be kept in mind that these babies are usually premature and, therefore, small. However, a primipara with a long and conical cervix, which gives promise of a slow and difficult dilatation with a central previa and a viable baby in good condition, will probably be better delivered by Caesarian section. The primipara with a doubtful baby, a partial previa, and a soft cervix will probably be better treated with the bag, realizing that delivery from above means in all probability Caesarian in subsequent deliveries, with its accompanying high mortality—an unfortunate operation in a woman with a normal pelvis.

Packing the vagina alone, in cases of placenta previa, as is frequently done to control hemorrhage while the patient is being transported, is of little use unless the presenting part is engaged, because the placental site must be compressed between the presenting part and the vaginal pack. If the presenting part is not engaged, the lower uterine segment must also be packed. Of the three cases that died which were given this form of treatment, sepsis was the cause of death, on the fourth, tenth, and twenty-third days. The reason for this is that the gauze packing must be introduced into the uterus through the bacteria-containing vagina, and virulent organisms are inevitably deposited

at the open placental site. While this procedure controls bleeding fairly well and secures dilatation, it also produces sepsis, which the woman in her bled-out condition is unable to handle.

Rupturing the membranes is a simple and effective way of treating the marginal previa. This procedure allows the presenting part to descend, thus acting as a tampon and exerting pressure on the part of the placental site in the lower uterine segment. The labor is then allowed to proceed normally.

Multiple incisions of the cervix present technical difficulties, occasion loss of blood and increase the chance of sepsis. Better results were obtained by the simpler method of bagging.

Vaginal Caesarian section is limited practically to multiparae and patients who are not over eight months pregnant. The same arguments obtained against this operation as of multiple incisions of the cervix. In some cases, however, as occurred in one of this series, the bag will fail to start labor, when it will be necessary to resort to one of the cutting operations.

Transfusion was performed in five cases. This operation should have a more prominent place in the treatment of placenta previa. One of the important things to do early is to see if the husband or some member of the family has blood compatible with the patient, or have a group four professional donor available. The giving of blood should not be delayed until the patient shows marked symptoms of anemia, but should be given before or while the cervix is being dilated. Although it may be desirable to give whole blood in any case requiring transfusion, these cases of secondary anemia due to hemorrhage, where the object sought is to replace the volume of blood lost, the citrate method of transfusion has proved its usefulness, being simple, sure, and effective.

In considering a group of cases of this kind, it must be kept in mind that the patients presented wide differences in regard to the condition in which they arrived at the hospital, amount of blood lost, degree of previa, period of gestation, and the amount of manipulation outside the hospital. However, it seems fair in view of the foregoing statistics to draw the following conclusions:

1. The treatment of placenta previa should be immediate delivery, except those cases which are in profound shock and collapse, when it may be better to first combat this condition with transfusion and appropriate shock treatment; also an expectant policy may reasonably be adopted in the case of the patient who has bled but little, with a baby close to the period of viability, and is under close observation in a well-equipped maternity hospital.

2. Accouchement forcé has not been followed by good results.

3. The hydrostatic bag is the method of delivery of choice.

4. Caesarian section is indicated in a case

with a disproportion between the size of the pelvis and the foetal head; also in the occasional case of primipara with a long, rigid cervix, a viable baby in good condition and a complete previa.

5. The other methods of delivery mentioned have produced no better results than the bag, present more technical difficulties, and have been followed by more sepsis.

353 Commonwealth Avenue.

CHRONIC ARSPHENAMINE POISONING TREATED WITH AND WITHOUT IN- TRAMINE

BY HENRY D. LLOYD, M.D., BOSTON

[From the South Medical Clinic, Massachusetts General Hospital.]

SINCE the South Medical Department was established we have treated 28 cases of chronic poisoning by arsphenamine or its derivatives. From this series we have excluded all cases concerning which there was a reasonable doubt as to the etiology of the toxemia. Thirteen of these cases were treated by a diet from which fat was absent, by forcing fluids, by purgation and by local treatment of the skin. Of these cases 9 suffered from jaundice and 4 from dermatitis. The remaining 15 cases, of which jaundice claimed 7, dermatitis 7, and hyperpyrexia 1, were also treated by these therapeutic measures and in addition by the intramuscular injection of intramine, which was introduced to the medical profession by J. E. R. McDonagh of London in 1915.

In the 13 cases treated without intramine the average stay of the patient in the hospital was 17 days; one patient, with jaundice, died. In the 15 cases treated with intramine the average stay in the hospital was the same. Two cases of this latter series, one of jaundice and one of dermatitis, ended fatally; one of these deaths, however, was caused by an intercurrent pneumonia. The other patient in this series who died showed an unusually severe dermatitis following rather intensive treatment by arsphenamine.

The difference in the mortality rate between the two series is slight, but though slight is in favor of treatment with intramine. We are now using sodium thiosulphate¹ in the treatment of arsphenamine poisoning and shall report our results from the use of this drug later.

REFERENCE

¹ McBride, W. L., and Dennie, C. O.: Arch. Derm. and Syph., 1923, vii, 63.

AN UNUSUAL CASE OF APPENDICITIS

BY CHARLES L. UPTON, M.D., SHELBURNE FALLS,
MASS.

ON December 14, 1923, I was called in consultation 13 miles out in the country to see a man who gave the following history: A man 79 years old, veteran of the Civil War, chronic diarrhea and double inguinal hernia dating from that time. The right hernia was said to frequently "come down" and often replaced with difficulty. He also had a bad valvular heart lesion, with loss of compensation. Present history: About Thanksgiving time he began to have gastric distress, nausea and some vomiting, which had continued up to the time I saw him. But the pain had become more general all over the abdomen and the bowel movements were much less frequent than usual, but he still had some every day. About December 6 or 7 he noticed a bunch in the place where his hernia usually came out and thought that it was down again, tried to replace it but could not. It gradually grew larger and more tender, and three days before I saw him he called a physician who tried to replace it but could not. Examination: Temperature 99, pulse 95, poor quality and intermittent. Abdomen perfectly soft—no peristalsis. A large, tender swelling in the region usually occupied by a right inguinal hernia—skin somewhat red over it. It extended only part way into the scrotum. I felt of it but made very slight effort to reduce, as I believed he had an irreducible hernia with partial obstruction. He looked like a very sick man, and the only possible chance of saving his life would be an operation, but he was in a farmhouse with no conveniences, and 25 miles from the nearest hospital; also, did not think he could stand ether. So, as soon as preparations could be made, I operated right there and under local anesthesia ($\frac{1}{2}$ per cent. novocaine); made the usual incision, and as soon as I opened the sack got a tremendous flow of pus, but, much to my surprise, could feel no gut or omentum, but did feel a foreign body, which on extraction proved to be a tooth; then, high up in the internal ring, found the remains of a sloughed-off appendix. He came off the table in better shape than he went on. Of course I did nothing further except to put in drainage, and I am pleased to say that he made an uneventful recovery. Later he told me he remembered swallowing that tooth just before Thanksgiving but thought nothing of it. The whole thing seemed so unusual to me that it seemed it might be worth while to report it. Even now I do not see how the error in diagnosis could have been avoided, unless one could have watched the attack from the very beginning.

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN
WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY

RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.

F. M. PAINTER, ASSISTANT EDITOR

CASE 10151

AN American housewife of fifty came to the Emergency Ward February 7. Her mental condition was such that no history could be obtained, and she was brought in without friends.

P. I. A physician who was attending her husband for chronic nephritis volunteered the information that until four days ago she seemed perfectly well. At that time she said she had pains over her body. The doctor gave her a tonic of glycerin and gentian. When he returned the day before admission he found her in bed, apparently almost unconscious. She had had no food, drink, or movement of the bowels for four days. According to the doctor neither the husband nor the wife was very intelligent.



P. E. A well nourished woman breathing very deeply and slowly. She seemed to understand what was said, but answered with great difficulty or not at all, and smiled occasionally without obvious cause. Skin extremely dry, with a lemon yellow tinge. Mucous membranes rather pale. Tongue very dry and furred. Throat and tonsillar pillars injected. Both submaxillary glands palpable. Chest examination unsatisfactory because of recent subpectoral hypodermoclysis. Coarse râles at both bases, with prolonged respiratory sounds. Heart not recorded. B.P. 110/55-95/55. Abdomen held very rigid, especially over both kidney regions, so that palpation was difficult. There was a large irregular indefinite mass in the right upper quadrant with a healed sinus in the right flank. Tenderness seemed most marked over the kidneys and in both costovertebral angles. Vaginal examination unsatisfactory, but seemed negative. Rectal examination negative. Pupils

dilated. No reactions to light (homatropin). Reflexes hyperactive.

T. 94.9°-98.6°. P. 82-117. R. 9-29. Urine. Amount not recorded. A catheter specimen was cloudy and showed a large trace of albumin, 75-100 leucocytes per high power field, and very rare red blood corpuscles. Another examination showed sp. gr. 1.012, a trace of albumin, ferrie chlorid positive, loaded with red and white blood corpuscles. No sugar at either examination. Blood. Hgb. 45 per cent., leucocytes 12,600-23,800, polynuclears 88 per cent.; reds 2,440,000, achromia; platelets decreased. Wassermann negative. Lumbar puncture February 9. 10 c.c. of clear colorless fluid. No block. Globulin, albumin and Wassermann negative. 4 cells. Total protein 222.

Orders. February 8. 10 grams of sodium bicarbonate in 300 c.c. of sterile normal salt solution. Force fluids. February 9. Caffein sodium salicylate gr. x s.c. p.r.n. February 12. Sodium bicarbonate gr. xl dissolved in orange juice t.i.d.

The patient was much dehydrated. The intravenous sodium bicarbonate was followed by a temporary increase in the respiratory rate. The non-protein nitrogen was 150.

February 10 the chest signs were as shown in the diagram. The fundi were negative. Repeated intravenous sodium bicarbonate injec-

tions were given. The patient gradually failed. The respirations fell to four a minute. She did not regain consciousness, and died that day.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

We start with a history of coma or a somewhat cloudy consciousness, with practically no other facts about the case except that the patient is fifty years old.

NOTES ON THE PHYSICAL EXAMINATION

What do people have sinuses in the right flank for,—kidneys?

DR. YOUNG: Drained perinephritic abscess which does not heal up.

DR. CABOT: There would not be likely to be anything in the peritoneal cavity that they go in there for, would there?

DR. YOUNG: Not that would leave such a sinus.

DR. CABOT: Her temperature was subnormal, most of the time between 95° and 97° throughout about a week's observation, and only reaches normal at the very end. A respiration of nine is remarkable in view of the fact that we do not know that she has had any morphia.

The total protein in the spinal fluid is pretty high. Except for this high protein, which Dr. Ayer told us the other day we get in hypertension and kidney troubles, we have nothing abnormal in the lumbar puncture fluid. We have no hypertension and nothing positive as to nephritis, though the low gravity and the sediment of the urine with the albumin are perfectly consistent with it.

In the diagram we see the position of the closed sinus, which certainly seems to be right over the kidney.

DIFFERENTIAL DIAGNOSIS

Let us put together all the positive evidence. In the first place, a short history so far as we know, which may perfectly well turn out not to correspond with the facts. But so far as either her doctor or her husband knows she was well until a few days ago. The positive things are jaundice—but is it jaundice, though? Is there anyone here who saw this patient in life? Was she jaundiced at necropsy?

DR. RICHARDSON: No.

DR. CABOT: Then this color is just the anemia which shows in the skin. Then we have anemia, a mass in the right upper quadrant, an old sinus over the right kidney, a urine perfectly consistent with nephritis, a high blood nitrogen, and dehydration with this very slow respiration, which I suppose mean acidosis. There is no evidence of sugar, nothing to point to diabetes. So that naturally nephritis and uremia is the first thing in our minds. That can cause just such an acute history as this, can come on without any obvious symptoms. The main questions are about this mass, whether it might correspond with the kidney or liver on the right, and the sinus. The record says, "A large irregular mass in the right upper quadrant." No diagram is given of that.

A PHYSICIAN: Could not that have been a kidney?

DR. CABOT: Perfectly well. I have just said I thought kidney and liver are the two things in mind. And the man who wrote the record evidently had in mind that this mass might be associated with whatever the operation was done for, or whatever broke through at this point.

A PHYSICIAN: I had in mind a normal kidney.

DR. CABOT: That is a poor description of a normal kidney, and all our internes describe so well that I should be loath to accept this as a normal kidney.

DR. YOUNG: Don't you think this might be a surgical kidney rather than medical nephritis, because of the mass, the sinus, the large amount of pus in the urine, the normal blood pressure? Because we can have for instance a calculous pyonephrosis at this stage of the game without any temperature, without history, and with another kidney which is congenitally small or also containing a stone.

DR. CABOT: That is a perfectly solid argument it seems to me. The times I have most often been wrong as to nephritis were when it turned out to be some of the things Dr. Young has spoken of.

DR. YOUNG: The anemia may go with infection as well as with lowered kidney function.

DR. CABOT: Exactly. We have no doubt that there is a lowered kidney function. It seems to me the total evidence goes toward such a lesion as Dr. Young has suggested: that is, the mass and the sinus are things which point toward something in the nature of a previous hydronephrosis, pyonephrosis, or perinephritic abscess, with or without stone.

DR. MEANS: In the uremia accompanying obstructing prostate how much hypertension do you get as a rule? That is to say, how much hypertension from the renal insufficiency that results from the prostate *per se*, aside from any nephritis that may be expected?

DR. YOUNG: We do not get any from prostatic hypertrophy. The hypertension is due to the condition of the kidneys.

DR. CABOT: That is not true of the so-called surgical conditions of the kidney. They give hypertension.

DR. YOUNG: They can all give some hypertension, but as a rule very little if any, and in these cases of prostatic obstruction the hypertension will diminish only partly after surgical interference. That is one reason I mentioned the low pressure here as indicative.

DR. MEANS: With an obstructing prostate, with a blood pressure of say 200, after the obstruction was removed would you get a drop to the normal?

DR. YOUNG: I should say not. There might be more in certain cases than in others, but never a drop to normal.

DR. CABOT: I believe this is a case of insufficient function depending upon destruction of the secreting portions of the kidney, probably due to some disease other than nephritis, even though there may be nephritis in the left kidney without which she would not have come to her end nearly so soon.

A PHYSICIAN: You wouldn't have to consider some poisoning?

DR. CABOT: I don't think so, on account of the anemia. There is no poisoning I can think of that is going to produce such an anemia.

A PHYSICIAN: Considering the blood, the mass, would you consider hypernephroma?

DR. CABOT: I have never known hypernephroma to produce this picture,—a high non-protein nitrogen, a sudden coma without any symptoms—I mean known symptoms—preceding; have you?

A PHYSICIAN: No, and it does not seem to me that is the best explanation, but one which perhaps ought to be considered.

DR. CABOT: That is true. One ought to mention it, but one ought to exclude it. I shall be very much surprised if anything of the kind is found.

DR. YOUNG: There is no evidence of pain, and this is not the type of bleeding generally associated with hypernephroma.

A PHYSICIAN: If she had a palpable mass and hypernephroma would she still be well nourished?

DR. YOUNG: She might.

DR. MEANS: Congenital cystic kidney could give this picture. I have seen them go on for years, then suddenly go into uremia. They have hypertension sometimes.

DR. CABOT: Yes. I do not remember a case without hypertension. But it would be a little queer if somebody went into the back to do things to a congenital cystic kidney. Of course they might have gone in by mistake, but I think that sinus sways me a little against cystic kidneys.

Of the possible "surgical" lesions let us now try to be as definite as we can. I should suppose an old pyonephrosis with destruction of the right kidney was the most probable thing here. Stone may or may not be associated, but cannot be the primary element in the diagnosis. Tuberculosis I should suppose we could exclude. I don't believe it ever produces this picture. Malignant disease we have already spoken of. I do not think anything more needs to be said about that. I have nothing more to say about a congenital cystic kidney. I do not see how it can be excluded, but I should expect more definite change in the heart and blood pressure. Also with cystic kidneys there is a good chance of our feeling something on the other side, and less chance that there would have been a previous operation.

DR. YOUNG: In what you say you still have to account for the left kidney, because one kidney can carry on.

DR. CABOT: As to the other side, congenitally small or wanting kidney I suppose is the rare thing. The commoner thing, I suppose, is chronic nephritis,—a unilateral chronic ne-

phritis of the left side with this suppurative destructive lesion on the other. Even with that it is a little queer why the blood pressure should not be high. You may say it has perhaps been high before. If that is so then of course we should have to think again of the congenital cystic.

I think that is as far as I can go; my first supposition something which seems to be an old suppurative process, pyonephrosis, on the right, with the destruction of that kidney, and chronic nephritis on the left; the second possibility a congenital cystic; and I cannot think of anything else that seems to me at all probable.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Nephritis with uremia.
Bilateral cystic kidney?

DR. RICHARD C. CABOT'S DIAGNOSIS

Old pyonephrosis, right, with destruction of the right kidney.
Chronic nephritis, left.

ANATOMICAL DIAGNOSIS

1. Primary fatal lesions

Nephrolithiasis of the right kidney, with marked atrophy of the right kidney.

Large mass of chronic inflammatory tissue in the situation of the right perinephric tissue, binding the organ to the liver and extending to the base of the depression in the right back.

Amyloid nephritis, left kidney.

2. Secondary or terminal lesions

Amyloid spleen.

Slight amyloid infiltration of the liver and pancreas.

Septicemia, streptococcus.

3. Historical landmarks

Scar of old operation wound, hysterectomy.
Slight chronic pleuritis, right.

DR. RICHARDSON: The peritoneal cavity contained a few cubic centimeters of thin pale clear fluid. The appendix, esophagus, stomach, intestines were negative except as we shall see in a moment. There was an old pocket-like depression on the right side of the back, and at the base of this a scar. There were a few cubic centimeters of fluid in each pleural cavity and a few old adhesions. The lungs showed some edema, but were otherwise negative. The heart

weighed 292 grams, the myocardium, valves and cavities negative. The aorta showed a slight amount of sclerosis here and there, but on the whole a very small amount. There were two renal arteries on the left.

The right lobe of the liver was bound to a mass in the situation of the right kidney. The spleen was slightly enlarged, weighed 321 grams, with a smooth surface. The tissue on section showed the sago markings of amyloid.

In the situation of the right perirenal tissues was a very thick sheath-like mass of chronic inflammatory tissue which extended out to the base of the depressed area in the back. This sheath bound the mass to the liver, and enclosed a thin remnant of kidney tissue which had lost its markings, was very thin, and surrounded fatty tissue in the midst of which, in apparently the situation of the pelvis of the kidney, was a large mass of stones. The ureter on that side was free and negative except that it was a little dilated just where it joined the pelvis. The left kidney was small, 120 grams. The capsule stripped off all right leaving a surface very faintly granular, the markings obscure. On cutting the organ, exposing it, and adding tincture of iodine we saw the mahogany brown streaks and spots, evidence of course of amyloid,—in the region of the glomeruli the spots, and along the vessels the streaks.

The uterus was represented by a surgical stump, the tubes and ovaries wanting. There was a faint old scar from the pubes up; evidently she had been operated on at some time.

The mass of stones in the pelvis was very irregular and rounded up underneath the duodenum. In the duodenum there were two areas of depression, and through that we could feel the outer surfaces of the stones. In the ascending colon there were two places where the stones protruded through the wall so that they were visible in the lumen of the intestine.

A PHYSICIAN: Was there any pus about the right kidney region?

DR. RICHARDSON: No.

DR. CABOT: That peculiar mass felt under the right ribs was this whole thing,—fat and connective tissue, and all sorts of things wound up around those stones?

DR. RICHARDSON: Yes.

DR. CABOT: Was there any cardiac hypertrophy?

DR. RICHARDSON: The heart was negative.

DR. CABOT: But the condition of the left kidney you would call amyloid nephritis?

DR. RICHARDSON: Yes.

DR. CABOT: I have been going over with Dr. Richardson the distinction between amyloid infiltration and the greater degree of that same thing which is called amyloid nephritis. Our records do not make it very clear as to the distinction sometimes. This you would distinctly

say was enough to interfere with the function of that kidney?

DR. RICHARDSON: This was a very distinct case of amyloid nephritis. The iodine test was quite perfect, as were the sections.

DR. CABOT: Should you be able to say whether this sinus in the back would be a spontaneous rupture or operation?

DR. RICHARDSON: It looked like a sinus leading out from the chronic inflammatory perirenal tissue.

DR. CABOT: What would you say about that, Dr. Young?

DR. YOUNG: It is not common for a perinephritis to have spontaneous perforation, but it does occur.

CASE 10152

An American girl of sixteen entered November 15.

F. H. Good so far as known.

P. H. She had had measles, whooping cough and scarlet fever. Since infancy she had been subject to earache and discharge from the ears. She had never played like other children, but cried a good deal, and had sick headache after exertion. During the summer before the present illness she had rather frequent fainting attacks in which she would fall and not be able to walk for some hours. There was no complete loss of consciousness. She had always slept with her head high, two or three pillows. She was always poorly developed physically, but was better mentally than her brothers and sisters.

P. I. Twenty-one months before admission, after having a cough for about a month, her abdomen began to swell, and after a month reached almost its present size. Under treatment it subsided markedly until the March before admission, when after a cough fluid began to reaccumulate. At a tap eight quarts was removed, and ten days later five quarts more. She had moderate ascites and moderate comfort until a month before admission, when she again began to cough and the fluid to reaccumulate. For two weeks the condition had been as extreme as at present. Two weeks ago her legs began to swell for the first time. For the past few days the dyspnea and cough had been worse. She slept poorly. Her bowels were constipated.

P. E. No routine examination was made, as the patient was in *extremis*. Her breathing was short, rapid, feeble and labored, interrupted frequently by a peculiar sound, a cross between a cough and a sneeze. Her pulse was scarcely palpable at the wrist. Her heart was greatly

enlarged, the cardiac dullness extending on the right to the nipple line, above to the second rib, on the left to beyond the midaxillary line, where the apex impulse was palpable in the sixth space, corresponding with the left border of dullness. The action was extremely irregular,—in delirium. The first and second sounds could hardly be distinguished. There were no murmurs and no thrills. The lungs were filled with coarse moist gurgling râles, and there was a little dullness with diminished respiration at both bases. The abdomen was enormously distended, flat everywhere, and giving a marked fluid wave on the slightest impulse. There was only very moderate edema of the legs.

T. 96°. P. 140. R. 67. Urine and blood not recorded.

The abdomen was tapped immediately and about 13,000 c.c. of dark orange turbid fluid removed; alkaline, sp. gr. 1.013, albumin 3½ per cent.; cells 70 per cent. lymphocytes, 30 per cent. endothelial. On account of the patient's condition the tapping was discontinued before all the fluid was removed. The edge of the liver was now felt about two inches below the costal margin in the right nipple line, in the epigastrium extending midway between the xiphoid and the navel. The edge was thick, hard, rounded, feeling more like a kidney than a liver. The spleen was not palpable. The general condition and the pulse improved considerably after the tap, though only about a quarter of the heart beats reached the radials.

Early the next morning the patient suddenly collapsed. Three-quarters of a milligram of strophanthin was given intravenously without the slightest effect. Half an hour later the patient was dead. The heart continued to beat for a few seconds after the respirations had stopped.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

This makes us think of a cardiac or renal case, or a combination of the two diseases.

As to items bearing on a case that we know ended fatally the important thing is the two or three pillows for her head. The rest of the past history does not help so far as I see.

Three times the cough and ascites came together, which makes it sound as if it was a dropical fluid and not tuberculous peritonitis. Of course cough can be due to tuberculosis of the lungs; ordinarily however we do not have the two forms of tuberculosis together.

The dyspnea toward the end of the present illness is the first we have heard of, but I suppose it had been present before.

NOTE ON THE TREATMENT

That is a pretty large dose of strophanthin for a person about whom so little was known, and at sixteen. I think I have seen a milligram fatal; this was three-quarters of a milligram.

DIFFERENTIAL DIAGNOSIS

We do not know anything about the urine, but we can certainly say that we have had no uremic symptoms and that we have not the distribution of edema that is usually seen with a chronic nephritis. Still I do not feel that we can absolutely exclude nephritis. The biggest hearts seen at this age or any other age are always with chronic pericarditis. Out of all the hearts necropsied in this hospital the four biggest are all chronic pericarditis. Hence whenever we get what looks like an enormous heart we think of that, especially when it is in a young person, without reference to any other facts at all. Then the extension of dullness so far to the right also makes us think of pericarditis, but rather of pericarditis with effusion, and I do not see that we have any good grounds for distinguishing those two here. The association of an ascites out of proportion to any edema elsewhere, with some cardiac lesion, has long been believed to point to chronic adhesive pericarditis and mediastinitis; certainly the history in this case suggests that. I do not see that we have anything to suggest valve lesions, though in a person seen only in *extremis* it is perfectly possible that there are extensive valve lesions here which in that condition would not manifest themselves to auscultation or otherwise. She has no rheumatic history. That does not in the least exclude a rheumatic form of heart infection including the pericardium. This is on the whole what I believe she has.

I do not see that we have any evidence of lung disease or of primary liver disease, which at her age would be very rare. The blunt edge of the liver is what is found in chronic passive congestion and does not in itself suggest anything in particular. I am rather surprised that the spleen was not felt.

So on the whole it seems to me the best bet here is chronic adhesive pericarditis; the second best bet is an acute pericarditis with perhaps some old chronic also; and the third best bet is a chronic nephritis with a hypertrophied and dilated heart. That seems to me much less probable than the other two. With or without some one of those lesions there may perfectly well be valve lesion not made out on account of those conditions.

Outside of the heart or kidney disease I do not see that we have anything except passive congestion, although the extreme ascites suggests the possibility of a capsular form of cirrhosis. Whether the therapeutics had anything

to do with the sudden end, I do not know. It seems to me quite conceivable that it did.

I cannot connect those fainting attacks or her sick headaches after exertion with a heart lesion. Nor do I think those sick headaches after exercise point to kidney trouble, as any headache of course might. If scarlet fever is due, as the Doctors Dick* say it is, and Dr. Dochez† allows it probably is, to a streptococcus, then that might have been the occasion of a streptococcus infection of the heart. That is as far as I can go. Dr. Means, would you add anything?

DR. MEANS: I agree absolutely with your diagnosis of pericarditis. There are one or two things that interest me particularly. The story that she had always slept with her head high, on two or three pillows, is interesting if it is a true orthopnea, as perhaps it may be. It may throw some light on the duration of her ailment. The ascites as I understand it in this disease is not necessarily a manifestation of weak heart muscle, but may be a mechanical affair, and I wonder if possibly the orthopnea occurring before dyspnea may not be something of the same sort. Haldane's work on orthopnea seems to show that it is due to the fact that it is more difficult to expand the lungs in the supine position. A thick adherent pericardium might easily distort conditions in the chest so as to accentuate this difficulty. One might wonder also whether the fainting attacks could be due to pericarditis. Of course any increase in pericardial pressure tremendously interferes with the output of the heart. Supposing the pericardium was a rigid sac fitting the heart very tightly and there came a demand for an increased output, we might get syncope more or less as we do in Stokes-Adams disease. Have you ever got a history of this kind in adherent pericarditis?

DR. CABOT: I do not remember it. I think a long history is rather characteristic of adhesive pericarditis. It is one of the longest of cardiac troubles.

DR. MEANS: When one considers the cardiac circulation and what tremendous changes have to be produced suddenly in the heart's output it seems to me easy to understand that with a rigid and adherent pericardium there might be tremendous interference. Our resting blood flow is about five liters per minute, and during work we may have to increase it to twenty or more in a few seconds. If the heart is constrained by a closely adherent pericardium it might have difficulty in bringing about this increase.

DR. CABOT: It is a sort of strait-jacket for the heart.

DR. MEANS: Peabody's work on dyspnea included experiments on persons climbing stairs

*Dick, G. F., and Dick, Gladys H.: Experimental Scarlet Fever, J. A. M. A., Oct. 6, 1923. The Etiology of Scarlet Fever, J. A. M. A., Jan. 26, 1924.

†A. R. Dochez, M.D.: The Significance of Streptococcus Hemolyticus in Scarlet Fever, J. A. M. A., Feb. 16, 1924.

in a treadmill, and it was interesting to see how much sooner they got dyspneic when they had on tight chest binders that decreased the vital capacity of the lungs about one-half.

DR. CABOT: The diagnosis of patent ductus arteriosus depends either on the evidences of a congenital heart disease, cyanosis, clubbed fingers, etc., which are not usually present unless there are other lesions as well, or on a peculiar continuous murmur lasting through the whole cardiac cycle, which we have not heard anything of here. I should say that we cannot make that diagnosis, though we cannot exclude it.

DR. W. D. SMITH: I had already written the same diagnosis. This is very far-fetched; but considering the physical condition, "always poorly developed," and the mentality of her brothers and sisters, it is conceivable that she may have had congenital syphilis. There is no real evidence of it. That might account for anything in the world; but I do not believe she had it.

DR. CABOT: They probably would have noticed something about her face, teeth or shins. Still I think the point is a perfectly good one.

DR. W. D. SMITH: The headaches apparently came on after exertion, but it does not say that the attacks of queer interference with consciousness came on after exercise. That is, apparently, as far as the record goes.

DR. CABOT: No. That is why I did not feel sure that there was any association of those with the heart.

We have all put down as our first diagnosis adherent pericardium. I have very seldom made that diagnosis right, and feel about it as I do about the diagnosis of syphilis. The fact that we so seldom make it right here makes us cautious, but I do not know anything better to say.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Adherent pericardium.
Perihepatitis.
Ascites.

DR. RICHARD C. CABOT'S DIAGNOSIS

Adherent pericardium.
Hypertrophy and dilatation of the heart.

ANATOMICAL DIAGNOSIS

1. Primary fatal lesion

Congenital stenosis of the aortic valve.

2. Secondary or terminal lesions

Hypertrophy and dilatation of the heart.
Slight hydropericardium.
Chronic passive congestion, general.
Ascites.
Edema of the lower extremities.

3. Historical landmarks

Chronic peritonitis.
Scoliosis.

DR. RICHARDSON: The skin and mucous membranes were pale.

The pleural cavities contained a small amount of thin pale fluid. There were no adhesions. The lungs showed chronic passive congestion.

There were a few c.c. of fluid in the pericardium. The pericardium was negative. The heart weighed 645 grams. The organ was markedly enlarged, especially for the age. The auricular walls were thickened and the cavities enlarged, the greatest enlargement that of the left ventricle. The mitral valve measured 9 cm., the tricuspid 12.5 cm., the pulmonary 7.5 cm. Those valves were negative. The aortic valve, which had a small irregular orifice about $3\frac{1}{2}$ cm. long, consisted apparently of two cusps, one large and one small. These were thickened and fused together at their margins of contact. The smaller cusp showed fibrous thickening and at its base areas of yellowish fibrous change—altogether considerable deformity. The larger cusp showed some thickening, with small flattened fibrous ridges extending across it, but with much less deformity than the smaller cusp. The coronaries were free and negative. The condition was regarded as congenital aortic stenosis.

The abdomen was slightly distended. There were two small tap wounds in the abdominal wall. There was considerable ascites. The liver weighed 1230 grams, with typical nutmeg markings. The spleen weighed 210 grams, the thick chunky spleen of passive congestion. The kidneys weighed 195 grams; chronic passive congestion, otherwise negative. The stomach and the intestines showed the velvety red mucosa typical of chronic passive congestion.

The legs, ankles and feet were swollen and pitted on pressure.

We were not permitted to examine the head.

DR. CABOT: When we get a good throw-down like this it is well to note for further reference that this condition of ascites out of proportion to any other manifestation of dropsy in the body happens without any explanation that we can give.

There was chronic peritonitis. Was that a local or a general thing?

DR. RICHARDSON: Rather general. It is presumably associated with the old passive congestion. It was thickened and rather vascular and was well marked.

DR. CABOT: Would it mechanically tend to increase the accumulation of ascites?

DR. RICHARDSON: I think that it might.

DR. W. D. SMITH: There is not a thing that really suggests aortic stenosis.

DR. RICHARDSON: How about the fainting spells?

DR. MEANS: It is no easier to attribute that to aortic stenosis than to pericarditis.

DR. CABOT: No.

DR. MEANS: It is extraordinary that there was no thrill.

DR. CABOT: She was in *extremis*, so that I don't think that is extraordinary. If we had seen her when she was well I think we might have found it. She had no pulse to speak of when she came here. Dr. Richardson, what were the considerations that made you believe it congenital?

DR. RICHARDSON: The character of the lesion; the two cusps, apparently two that had been fused, not three; and the peculiar character of the fibrosis. As to whether some of this fibrosis may not have been due to an early endocarditis is a question.

DR. W. D. SMITH: Isn't it very unusual in congenital heart disease to find one single defect alone?

DR. CABOT: I should say so.

DR. RICHARDSON: She had a middle ear.

DR. CABOT: Yes, she had, and scarlet fever.

DR. RICHARDSON: How long ago?

DR. CABOT: Since infancy she had ear-ache and discharge from the ears.

CASE 10153

AN English housewife of fifty-one entered November 9.

F. H. Good.

P. H. Except for typhoid fever twelve years before admission she had been well. She had had four miscarriages. She thought she passed the menopause a year ago, but two weeks ago noticed slight staining for two days.

P. I. Twelve years ago after her attack of typhoid fever she began to have attacks of dull pain in the right back and hypochondrium shooting up into the right shoulder, occurring at first once a month, but increasing in severity and frequency until now they came once a week or oftener. She had never been really jaundiced, but her friends told her that she was yellow during the attacks. During the attacks she was frequently nauseated but rarely vomited, and her urine was rather high colored.

P. E. Rather obese. *Heart* not enlarged. A systolic murmur at the apex, but loudest in the aortic area. *Pulses* and *lungs* normal. *Abdomen*. In the right hypochondrium just below the costal margin was definite tenderness on moderate pressure; no mass. Slight tenderness in the right lumbar region. *Extremities*.

Marked varicosities along the course of the internal saphenous vein on the right leg. A few dilated veins on the left leg. *Vaginal examination.* Second degree tear of perineum. Slight cystocele and rectocele. Marked bilateral tear of cervix. Uterus in good position, slightly enlarged, freely movable. No masses or tenderness in the culs-de-sac. *Rectal examination* negative.

Before operation *T.* 99.4°-97.9°, *P.* 90-100, *R.* normal, amount of urine not recorded, sp. gr. 1.014, the slightest possible trace of albumin, considerable pus. *Blood* not recorded.

Operation was done November 11. The patient made a good ether recovery and was comfortable until the following afternoon, when the temperature and respirations went up and she felt slightly nauseated. Next morning the temperature was down. She felt better, but there was some distention, which was much increased the next day. The pulse was becoming much weaker. That night she had five foul watery movements with no relief to the distention. She commenced to vomit stercoraceous smelling material. She did not respond to any stimulation, failed rapidly, and died November 16.

DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

This is a pretty good textbook story of gall-bladder trouble. At the time of this necropsy typhoid fever was always asked for. I do not think there are fewer gall-bladders seen now even though typhoid is gradually being eliminated. The mere fact that the attacks came just after her typhoid probably means that she had a typhoid cholecystitis, which is so often present, and with trouble going on as long as this it may well be that she has stones as well. There is nothing given in the way of events to make us think of anything else.

The only things in the physical examination to comment on, other than the fact that it evidently bears out the diagnosis of gall-bladder disease, are the two facts of tenderness in the right hypochondrium region and pus in the urine. Of course that is not a catheter specimen, and there is nothing on which to base anything more than a surmise. Also the tenderness often goes with a certain amount of trouble in the liver accompanying gall-bladder trouble. So we can do nothing but wonder if there might be a little trouble in the right kidney.

I do not see how we can reasonably make any other diagnosis than chronic cholecystitis, probably with stones. There is no jaundice that we are sure of, but in spite of that there could be a common duct stone. Common duct stones

with attacks due to them do not necessarily have to cause jaundice, and as I see it the only thing to do is to go in. To-day it would be a cholecystectomy; at that time it probably was opening of the gall-bladder with removal of the stones and drainage.

OPERATION

No pre-operative diagnosis is recorded. Ether. Four-inch right rectus muscle splitting incision. Peritoneum opened without incident. Gall-bladder felt normal except for a few adhesions around the common duct. Two stay sutures were placed in the gall-bladder and the organ opened and thoroughly explored. No stones were found. The common duct was explored and found negative. A gauze wick was placed in the gall-bladder. The remainder of the abdomen was explored and nothing abnormal found except a rather large right kidney. A wick was left in the gall-bladder.

BACTERIOLOGICAL REPORT

Culture from the operation wound showed a mixed scum growth of Gram-decolorizing colon-like bacilli, large Gram-staining bacilli and micrococci.

FURTHER DISCUSSION

This does not tell us whether they thought they were typhoid or merely colon bacilli. It is enough, however, to tell us there was cholecystitis there.

It sounds as though she had a spreading peritonitis with obstruction from the infection. I do not see how we can assume that there was anything missed, and I have no other diagnosis to make as the cause of death.

I do not see quite how, even with the evidence of a large kidney and what they call a normal gall-bladder, we can assume that the attacks described were kidney. I think they must have been attacks from the cholecystitis.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Cholecystitis.
General peritonitis.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Cholecystitis.
General peritonitis.

ANATOMICAL DIAGNOSIS

1. Primary fatal lesion
(Cholecystitis.)

2. Secondary or terminal lesions

Operation wound, cholecystotomy.
General peritonitis.
Marked distention of large intestine.
Acute pleuritis, right.
Soft hyperplastic spleen.
Hypertrophy and dilatation of the heart.

3. Historical landmarks

Adenoma of left adrenal.

DR. RICHARDSON: The abdomen was markedly distended, the wall tense. The peritoneal cavity showed frank general fibrinopurulent peritonitis. The peritonitis was rather marked in the region of the base of the wound in the abdominal wall, and the retroperitoneal tissues at the base of the wound showed infiltration with fibrinopurulent material. The fundus of the gall-bladder was bound to the base of the wound and presented a surgical opening connecting with the open portion of the wound. The gall-bladder and ducts were negative. The intestines were considerably distended, but the walls were intact.

The heart weighed 470 grams,—considerable hypertrophy, for which no anatomical cause was found. Perhaps the obesity is a factor.

The adrenals were negative except that in one there was a small adenoma.

Cultures from the heart and spleen were negative.

DANGER SIGNALS ON THE ROAD TO HEALTH

Every wise mother recognizes some of the physical danger signals that precede childish ills.

Unnatural fretfulness, sore throat, suffused eyes, or a snuffly nose: these are not disregarded nor is time lost in waiting to see if perchance the child may not "outgrow" them. Instead they are considered as useful symptoms which make it possible to prepare calmly and intelligently for what may later develop into measles or scarlet fever.

Very few mothers, however, recognize the mental danger signals that precede later nervousness or the development of peculiar and twisted personalities.

For this reason it is important for mothers to understand that if they are present in chronic or excessive degree, such childish personality traits as temper tantrums, extreme shyness, day-dreaming, jealousy, demands for attention, pugnacity, and similar conditions, should be thought of as presaging some kind of mental maladjustment in later life, and should be given immediate attention of a corrective nature.—*Monthly Bulletin*, Massachusetts Society for Mental Hygiene.

Book Reviews

Diseases of the Skin. By FRANK CROZER KNOWLES, M.D. Second Edition. 595 pages, 229 illustrations and 14 plates. Philadelphia and New York: Lea & Febiger, 1923. Price, \$6.00.

This volume has been completely revised; much of the old has been rewritten and considerable new material has been added.

The book is intended for the student and the general practitioner. They will find it a very useful and sound book of reference.

It covers the field of dermatology well. The descriptions of the various diseases are not long but contain all the essential facts which a practitioner needs to know. The style is short, crisp and clear.

Those using the book will find most helpful the practical diagnostic tables which have been added and which show the regional distribution of common diseases of the skin and the type of lesions tending to involve certain areas.

The description of the special methods of treatment such as autoserum, vaccines, phototherapy, radium, refrigeration, etc., constitutes one of the best chapters in the book. The various methods are described in sufficient detail so that they should be exceedingly useful to the reader.

The book does not pretend to be a textbook, but it meets its claim to be of help to the general practitioner and to the student excellently well.

Healthy Mothers—Healthy Babies—Healthy Children. By S. JOSEPHINE BAKER, M.D., D.P.H., Director, Bureau of Child Hygiene, Department of Health, New York City. Boston: Little, Brown & Co., 1923.

This trinity of books by Dr. Baker, written for the laity, contains valuable instructions intended to give a clear insight into the methods by which healthy and normal offspring may be produced and reared. The physiology of conception and pregnancy is explained in simple terms in the first of the series. The second, dealing with the problems of infancy, does not differ greatly from the host of textbooks on this subject. The importance of the vitamin content of raw milk is overestimated and an argument could be raised over the statement that raw milk is more digestible than boiled or pasteurized milk. We may feel that the whole point of the rickets problem is missed when we read that the white of egg and milk are advocated for the prevention and cure of this condition.

Despite these discrepancies this set should be, on the whole, a welcome addition to the home library of the parents of infants or young children.

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"THE SHOT HEARD ROUND THE WORLD"

UNDER the above caption the Medical Liberty League, Inc., by Henry D. Nunn, General Counsel, makes the opening statement in its recent circular as follows:

"TO THE PARENTS, SCHOOL AUTHORITIES AND TEACHERS OF MASSACHUSETTS:

"Concord, where 'once the embattled farmers stood' and faced the first murderous fire of the British troops in the War of the Revolution, has again been the scene of 'shots' heard round the world."

It is then further stated in the circular that nineteen boys and girls in a Concord academy and twenty-five public school children in Bridgewater, after the use of the toxin antitoxin treatment, became alarmingly ill.

"The official advocates of the Schick test" are given a word castigation by the use of such terms as "fiasco," "unwarranted assurances," "tried to take refuge in the hurriedly formulated theory," "the freezing of the material could not excuse the State and local public health officials from full responsibility," "They are morally responsible if not legally liable," "We challenge them to prove this convenient hypothesis," "the same men who have so reck-

lessly promoted the Schick procedure," "was it the propaganda of public officials pretending to little less than omniscience?" and "overzealous and heedless of all the warnings."

Everybody conversant with the situation expected this blast. The Medical Liberty League, Inc., must justify its existence to its constituency. Its counsel is paid for putting out this sort of stuff. The League would abolish compulsory vaccination and now it is trying to lead people to decline the Schick test and toxin antitoxin because of the illness of forty-four children among the thousands of those who have been given the immunizing treatment.

The League does not give us the names of eminent health officials, scientists and others who would abolish the toxin antitoxin treatment in the susceptible class. It only sets up its own arguments. We are not ready to leave the interpretation of the theories concerning, and methods of securing, immunity to the disease which causes so many deaths, to these objectors.

The assumption that our public health officials are not honest in their explanations is beyond ordinary decency. The people who oppose progress in scientific disease prevention seem to quite enjoy the disappointments which sometimes come to all human beings. If these people are logical, why not go outside of medicine and advocate the abolishment of fire departments because of occasional technical errors, or argue against innumerable safety devices because complete success is not obtained?

Does the counsel of the Liberty League ever stop to study the facts and try to learn the extent of the important contributions to human comfort and safety brought about by scientific medicine? Let him and his associates continue to rail at doctors and preventive medicine. He may hinder progress to a slight degree, he may divert some parents from life-saving procedures for their children, but the truth will prevail and in time he and they will be regarded as visionary as was Don Quixote.

Fortunately none of these forty-four children were sacrificed, and the likelihood of any other untoward results is lessened, for every possible care is being exercised in the preparation of our biologic products.

There will come a time when public health officials will be more generally recognized as our most useful servants.

A SENSATIONAL NEWSPAPER REPORT

DR. E. A. CODMAN read a paper before the meetings in Chicago recently which was incorrectly quoted in the daily papers. The published statements very naturally caused definite feelings of resentment. The report set forth that four hundred surgeons had convicted themselves of dishonesty or incompetence in reporting cases of bone sarcoma.

Although true to form in his striking way of driving home his argument, it is evident that Dr. Codman did not intend to make the charge attributed to him. That part of the address which led to the newspaper interpretation is as follows:

"Before proceeding further let me say this, that we have now collected from the most efficient surgeons and hospitals in the country notes on some four hundred-odd cases of supposed bone sarcoma. I say these surgeons and hospitals are the most efficient because they have been willing to assume the responsibility for their acts. Yet all these four hundred registered cases with few exceptions are records of error or failure. Efficiency is nothing but the truthful use of truth. It begins with the acknowledgment of failure which means determination to improve.

"I have many of the foremost surgeons and pathologists in the country, convicted in their own handwriting of gross errors in these cases. Legs have been amputated when they should not have been and left on when they should have been amputated. Yet I ask you are these men less efficient than those who have not been studying these cases with us, and don't know now whether the legs should have come off or stayed on? Or even whether the patients lived or died? And those who have registered their errors are not all great men,—some are only earnest men."

These reports on the four hundred cases of supposed bone sarcoma are defined as coming from the most efficient surgeons and hospitals. There is no reflection on these surgeons in this. The statement that with few exceptions the reports are records of error or failure simply states the facts. Since the errors are common to so many the statement simply shows that the great majority of those coming in contact with these cases were not familiar with this type of tumor. A common or comparatively common lack of knowledge of a particular disease has been a feature of the history of medicine. Common understanding comes after the dissemination of knowledge by the pioneers. The common ignorance of the past does not necessarily imply dishonesty. At the present time the man who would assume the responsibility of deciding how to treat a tumor which might be a so-called bone sarcoma without having given adequate study to the subject or securing a consultation would be blameworthy, whereas a decade ago he would have represented the average knowledge of that day in amputating a leg which should have been left alone.

The Registry of Bone Sarcomas has cleared away some of the uncertainty of the past, and definite progress has been made in defining the appropriate management of these cases. The profession should give unstinted praise to those

men who have labored in a hard and comparatively unproductive field without general or enthusiastic cooperation, for the sufferers with bone tumors, although few in number, will be benefited by the acquired knowledge and surgeons will be spared the humiliation of error.

The rest of the paper deals with hospital efficiency through end-result records and general exhortation to encourage better surgery. There can be no criticism of the motive of the writer, although there may be differences of opinion as to the style employed in the arguments presented.

Contrary to the newspaper reports the address was applauded.

The paper will be published and therefore the verdict of those who were not present may, with propriety, be reserved until it may be read.

Dr. Codman's criticisms are always followed by constructive suggestions.

REVOCATION OF REGISTRATION

DR. JOSEPH A. CHAUSSÉ was recently before the Board of Registration in Medicine on charges of gross unprofessional conduct.

A child had been treated in St. Luke's Hospital, New Bedford, for tuberculosis of the hip. The recognized methods for such cases had been employed by competent physicians. One of the hospital physicians showed x-ray pictures demonstrating the lesion. The parents took the child away from the hospital against advice and placed him under the care of Dr. Chausse. According to Dr. Chausse's own statement he made an inadequate examination of the child and accepted the parents' statement that the physicians on the hospital staff had been treating the case as Pott's disease. This statement was not in accordance with the facts.

Dr. Chausse advised applying white pine gum and lard to the patient's knee and hip, and gave beef, wine and iron as a tonic. He claimed that the patient had improved under his treatment. The child's temperature and pulse at the time of the hearing were both above normal, as determined by a member of the Board, and he was unable to walk without the aid of crutches.

Two investigators testified that they had been to Dr. Chausse's office and had been given prescriptions. Dr. Chausse did not examine either of these patients and prescribed without making any effort to ascertain the need of treatment except through the statements made by these men.

Dr. Chausse testified that he usually made his diagnosis by listening to the story told by patients to his clerk, who recorded the histories, only asking an occasional question as he felt inclined, and that he did not find it necessary to make examinations as a rule.

Dr. Chaussé's interests were cared for by a competent lawyer, who argued for a favorable verdict.

After the hearing was closed the Board voted to revoke the registration of Dr. Chaussé.

THE MIDDLESEX COLLEGE OF MEDICINE AND SURGERY

A REPORT of the investigation of this college by the Connecticut Special Grand Jury is a scathing indictment of this institution and should prompt the Massachusetts Medical Society to deal with those of its members who are aiding and abetting the maintenance of a medical school which is severely condemned by a judicial body of a sister State.

If the college is inadequately equipped and does not maintain a teaching service in conformity with its published claims it is securing students under false pretences, and hence is not in the class of honorable medical organizations.

This condition can be dealt with effectively if the Society is disposed to act. Since the charges have been made public it is the duty of the Society to ascertain whether those of its men who are supporting this school are entitled to fellowship in the Society.

The time has come when it should be determined whether the Society stands for ethical standards in all matters pertaining to medicine.

If, on investigation, it is found that the conduct of the faculty of the Middlesex College is above reproach, there is nothing to be said other than to disagree with the Connecticut Special Grand Jury; but if investigation shows that students are induced to enter the college and pay the required fees through fraudulent claims there would seem to be only one course to pursue.

Unless action is taken, the Society may be regarded as indifferent to the behavior of its members so far as condemnation by a judicial body tends to show dishonorable conduct.

REPORT OF PUBLIC HEALTH COMMITTEE OF NEW YORK ACADEMY OF MEDICINE

THE report of this committee for the year 1923 has been published.

The committee consists of thirty-four physicians under the leadership of Charles L. Dana, M.D., chairman.

The recommendations are as follows: Enlarging the psychopathic service of Bellevue Hospital and establishing a hospital in the city in connection with the Psychiatric Institute of the State. Second, that the location chosen in the Bronx for a new hospital is not to be ad-

vised, but that an addition to the Fordham Hospital would meet existing needs better than any present plan and "it may be well to consider whether a new hospital in another section may not be a better . . . investment." Third, since it has been found that several of the maternity hospitals report that from 2.9 to 10 per cent. of the women admitted are syphilitic, the recommendation is made that in all hospitals a Wassermann test should be made of every obstetrical case, preferably before admission.

Criticism of much of the institutional convalescent care, because of lack of adjustment rather than facilities, is submitted. It is suggested that all blanks used in hospitals should be standardized and made uniform.

The establishment of health centers in the rural communities is especially recommended.

One matter of interest common to many States is affecting New York and is found in the effort to secure recognition of chiropractic.

The committee definitely recommends that all cults that desire to secure the right to practise must have the same amount of scientific education as that required of medical students and be registered under the same conditions; except that those cults that are willing to be recognized as masseurs could register as masseurs but not as physicians.

The committee pays its respects to Conéism, and the opinion is expressed that no new forces are employed in this system but only another method of suggestion, and that distinct harm may result in certain instances by procrastination when definite action is demanded.

In regard to religious healing the committee takes a decided and thoroughly reasonable stand as shown by these words: "First, that religious healing when conducted, as is usually the case in connection with a church and where the physician is only an adjuvant, is bad for the patient and bad for religion; and secondly, that in clinics and preventoria for nervous, mental, and personality disorders, arrangements might be made for a clergyman to assist the physician, the work of the clergyman to be supervised and carried on in a medical rather than clerical environment."

The necessity for the study of the cause of puerperal mortality is referred to.

The archaic laws relating to autopsies call for consideration because of the importance of pathological study and the needs of the medical schools. A bill will be drafted to meet the indications.

Other matters dealt with are questions relating to nurse anesthetists, training of nurses, occupational therapy, child health study, and some matters not strictly medical.

This committee report is a model of its kind for the subjects considered, and conclusions are explained in simple, definite terms, and it is evident that much constructive thought has been applied to the problems.

BETTER MILK FOR NEW ENGLAND

THE *New England Homestead* has recently published the results of a straw ballot among New England dairy farmers that is practically unanimously in favor of New England-wide milk marketing by an association of the farmers themselves. A committee appointed at the recent Bellows Falls conference is now investigating methods for putting this plan in operation.

Two definite and very obvious purposes stand out in any discussion of the milk problem. The first is to provide an adequate return for the producer in order that he may furnish a good milk, under suitable conditions, at a reasonable profit to himself. The second is to provide a safe, clean milk of standard and unvarying quality for the consumer. This is the basis on which all successful business should be conducted; it is especially necessary when the commodity involved is an important, universally used, highly perishable food substance, and one which, for better or for worse, is closely concerned with the health of the community.

These are the two factors which must be uppermost in the consideration of such an enterprise as is outlined above. We wish the farmers well. We should be glad to see them increase the legitimate profit from their business, for a class of people so necessary to the public welfare should be well recompensed for their labors.

We earnestly hope, however, that in considering methods for the improvement of their business standing they will not neglect to place side by side with this object their responsibility to the public and the possibility of the improved service that they can render.

With such an amalgamation can come new standards of purity far transcending those required by our inadequate dairy laws. The grading of milk as it exists in New York; the intelligent inspection of all contributing farms; standardized central pasteurization; Federal and State tuberculin testing and the accreditation of herds; these are the benefits that will accrue from the intelligent application of such a plan. The public confidence, once gained, will mean a good will that can be measured in dollars and cents. New England dairying is on the increase; an interest in it and an appreciation of it on the part of the public is all that is needed to establish it on a firm and lasting basis, but the public must know what it is getting for its money and it should be educated to an appreciation of its value.

It must never be forgotten that the producers' and the consumers' interests are identical and that a spirit of coöperation carefully fostered will be invaluable to both.

OCCUPATIONS FOR CONSUMPTIVES

THE Boston Tuberculosis Association has, during the past summer, undertaken a new line of work in planning suitable employment for ex-consumptives. In pursuance of this policy a "Placement Committee" has been formed, consisting of Dr. John B. Hawes, 2nd, chairman; Dr. Randall Clifford, Dr. Harry Linenthal, Mr. Eliot Farley, Miss Mary E. P. Lowney, Dr. J. Danforth Taylor, Dr. Nathaniel K. Wood, and Mrs. Anna Wright as field secretary.

Every year, under present conditions, the State of Massachusetts spends about one million dollars in trying to make useful wage-earning citizens out of those who have been unfortunate enough to contract tuberculosis. Of the patients who go to our State sanatoria, many arrive at the condition where their pulmonary lesions become inactive or arrested, and a large number of these on discharge are so situated that they are forced to earn their living, but find that their former positions are either no longer open or are of a nature unsuited to their present condition.

With the coöperation of Dr. Sumner H. Remick of the State Department of Public Health; Drs. MacCorrison, Coolidge and Emerson, superintendents of the North Reading, Lakeville and Rutland Sanatoria; the Social Service Departments of the various hospitals; and other agencies, the Boston Tuberculosis Association plans to develop a system whereby Boston patients on discharge from the sanatoria will be taken in charge and assisted in finding suitable work to do. Through the Out-Patient Department of the Boston Sanatorium these applicants will be examined every month and will be kept under careful supervision, thereby protecting employers and fellow-workmen.

Miscellany

LEAGUE OF RED CROSS SOCIETIES

The third biennial meeting of the General Council of the League will be held during the last days of this month at the new headquarters building of the League of Red Cross Societies in Paris. The constitutional charter of the Red Cross Societies was the result of the deliberation of a committee representing five Red Cross Societies in 1919. A year later 31 national societies had accepted membership in the League, which now numbers 51 members. The bulk of the financial resources necessary to the activities of the Secretariat are still provided from a guarantee fund put aside by the American Red Cross in 1919, although 32 other societies have contributed or promised to contribute to the League's budget for the current year.

MEMORIAL TO LORD LISTER

The memorial to Lord Lister erected in Portland Place, London, was unveiled on March 13 by Sir Charles Sherrington, G.B.E., president of the Royal Society. A tablet with medallion and inscription has also been placed in Westminster Abbey, and an international Lister Memorial Fund has been established for the advancement of surgery. As the award of this fund a sum of £500, together with a bronze medal, will be given every three years in recognition of distinguished contributions to surgical science, and the recipient will be required to deliver an address in London under the auspices of the Royal College of Surgeons.

REPORT OF THE TRUDEAU SANATORIUM

The thirty-ninth annual report of the Trudeau Sanatorium marks the beginning of the fortieth year of the institution. The chief addition of note during the past year has been a new fireproof laboratory, completely equipped.

During the forty years of its existence this famous sanatorium has established one of the first training schools for nurses, a widely known School of Tuberculosis, the first to be established in the world, and a fellowship system whereby young physicians overtaken by tuberculosis may engage in laboratory or other research work and earn their living while regaining their health.

SUMMER HEALTH CAMP OF THE BOSTON TUBERCULOSIS ASSOCIATION

Based on the temporary use last summer of the schoolroom at Prendergast Preventorium for a summer health camp, the Boston Tuberculosis Association is planning to open on June 1 a summer camp for one hundred children, boys and girls. The experiment last year was for a portion of the summer only, and with accommodations for twelve children for the maximum, but such good results were evident as to make the kind of work worthy of further development. For the experiment the schoolroom, unused during vacation time, was available, but for the coming health camp, space will be cleared on the Prendergast grounds, tents erected, and bathing and lavatory equipment, commensurate with the needs of the larger company, will be installed. For this, city water will replace the existing well, and gas will be used for the kitchen. Fortunately the large estate given by the late James M. Prendergast to the association will afford space in

plenty for the tents, without encroaching upon the pleasant wood patches in which the children wander with their teachers and study birds, flowers and other interesting features of the great out-of-doors.

Dr. George S. Hill, who is chairman of the Prendergast Camp Committee of the association, wishing to avoid any last minute confusion or delay, is now urging the out-patient departments of Boston, the clinics and the social centers to be looking over at once their possible candidates for the summer health camp. For their guidance Dr. Hill has formulated the opinion of the committee, that first of all the children—there will be both boys and girls, and the age limits are between five years and twelve—shall be pre-tuberculous, not showing symptoms of active disease, with an adult case of tuberculosis in the family, shall respond to the von Pirquet test, and shall be a member of a family not financially able to pay for institutional treatment.

In this group there are to be included any children who have been discharged from the Preventorium, but with whom the follow-up indicates the need of continuance of treatment for some time longer.

Should there be space available not taken by this group, children with *Phlyctenular keratitis* will next be considered, and any remaining places may be taken by children definitely undernourished, but not showing tuberculous tendencies.

Any who desire special information with reference to candidates for the camp should address Miss Bernice W. Billings, Executive Secretary, Boston Tuberculosis Association, No. 25 Huntington Avenue, Boston, or telephone Back Bay 10505.

The summer health camp of the association will not in any way interfere with the work of the existing Preventorium. This will continue with its regular group of about twenty little girls who are kept some months for treatment, until their improved condition suggests that it will be safe to return them to their homes. Recent tabulations show that the time of retention averages about four months, and in this time it is possible to so reinforce the resistance of the children that they may escape active tuberculosis throughout their lives, unless exposed to unusual conditions.

Plans for the addition of a wing for little boys have not been forgotten. The high cost of construction makes it prudent to defer for a little while the permanent buildings, but at the earliest feasible moment the association will take steps toward furnishing what the city of Boston lacks today: a place in which little boys who are pre-tuberculous can receive the treatment, food and care that will assure their future as self-supporting members of the community.

News Items

DR. RALPH S. PERKINS announces removal of his office to 847 Main Street, Worcester, Mass.

BEVERLY HOSPITAL.—The regular monthly staff meeting was held at the Beverly Hospital, Tuesday, April 1, at 4 p. m.

DR. JAMES H. MEANS read a paper before the New York Academy of Medicine, April 3. Subject: Observations on the Treatment of Exophthalmic Goiter.

THE HARVARD MEDICAL SOCIETY held a meeting in the Peter Bent Brigham Hospital Amphitheatre (Van Dyke Street entrance), Tuesday evening, April 8, at 8.15 o'clock. Program: Symposium on Some Experimental and Clinical Experiences in the Surgery of the Heart. 1. Angina Pectoris. 2. Mitral Stenosis. Drs. C. S. Beck, E. C. Cutler, J. Fine and S. A. Levine.

BOSTON CITY HOSPITAL.—The staff clinical meeting was held at the Cheever Surgical Amphitheatre, Friday, April 4, at 8.15 p. m. The following program was carried out: Early and Late Manifestations of Diseases of Prostate, Dr. Arthur L. Chute; Early and Late Manifestations of Diseases of Bladder, Dr. George G. Smith; Early and Late Manifestations of Surgical Kidney, Dr. William C. Quinby.

SPRINGFIELD ACADEMY OF MEDICINE.—The regular meeting of the Springfield Academy of Medicine was held at 137½ State Street, Tuesday evening, April 8, at 8.30 o'clock. "A Case of Ruptured Uterus," by Dr. Frederick Hagler. Dr. William R. MacAusland, orthopedic surgeon-in-chief at the Carney Hospital, Boston, read the paper of the evening entitled: "Joint Ankylosis and Its Treatment by Arthroplasty." The paper was demonstrated by lantern slides and moving pictures. Discussion was opened by Dr. Dudley Carleton.

EXTENSION OF X-RAY SERVICE AT THE BOSTON CITY HOSPITAL.—Dr. P. F. Butler, director of the X-Ray Department of the Boston City Hospital, announces the formation of a new sub-department of Radiation Therapy. This step is part of the program of expansion in connection with the opening of the new Thorndike Memorial Laboratory. In this clinic all types of x-ray treatment will be employed, both superficial and deep. In addition, adequate amounts of radium will be available for various kinds of radium treatment, with both emanation and the radium salts. Combined with these methods, electro-desiccation and electro-coagulation will be used. This clinic is the first in Boston where all the above types of radiological treat-

ment will be used in combination, under the direction of a radiologist. Dr. Isaac Gerber of Providence, R. I., has been appointed as assistant to the X-Ray Department and will have charge of this clinic.

REMOVALS.—Dr. Nathan Gorin has changed his address from Warren Street, Roxbury, to 576 Blue Hill Avenue, Roxbury.

Dr. Florence E. H. Knowlton of Worcester will be at the State Public School, Sparta, Wis., until late September.

Dr. John Joseph Dunphy is now at the South Department, Boston City Hospital.

Dr. Louis J. Grandison has moved from 358 Broadway to 15 Bond Street, Somerville.

Dr. Max E. Witte is now connected with the Illinois Department of Public Welfare, Institute of Juvenile Research, at 721 South Wood Street, Chicago, Ill.

Dr. Abner Post will be at his summer address, Auburndale Postoffice, until October.

Dr. James Harvey Townsend is now at 260 Willow Street, New Haven, Conn.

Dr. Marjorie Fultow has changed her address from Cooperstown, N. Y., to the Boston Psychopathic Hospital, 74 Fenwood Road, Boston.

Obituary

THE LATE DR. EUGÈNE DUPUY

The death of Eugène Dupuy, M.D., of Paris, former vice-president of the Société de Biologie and member of the Royal Society of London, took place on February 14 at his residence in Versailles, France, in his 77th year.

A native of Mauritius, Dr. Dupuy took his degree in Paris. He had been assistant to Professor Brown-Séquard, professor of experimental physiology in the Women's Medical School of London; member of the American Neurological Association; first vice-president of the New York Neurological Society, etc. He resided at different times in the United States, where he gave a number of lectures on the brain, in Philadelphia, Boston, New York, New Haven, Baltimore, Chicago, etc.

Dr. Dupuy will be remembered with great respect as a man of science as well as an enlightened, capable, and conscientious practitioner.

DEATH NOTICE

DR. WILLIAM HENRY ALOYSIUS LYONS of Manchester, N. H., died at his home in that city April 2, 1924, at the age of 57. Dr. Lyons, a prominent surgeon of Manchester, was a graduate of Holy Cross College, Worcester, in 1886, and of Harvard Medical School in 1890. He was a member of the American Medical Association. He first practiced medicine in Portsmouth, and went to Manchester in 1903. In

1919 he was appointed chairman of the board of trustees of the State Industrial School, serving in that capacity for five years. He was a member of the United States Pension Board in this district, examining physician for Manchester Council, Knights of Columbus, and Spanish American War Board Examiners, member of the surgical staff of the Sacred Heart Hospital, member of Hillsboro County Medical Society, fellow of the American College of Surgeons. He is survived by two brothers and two sisters.

THE RESULTS OF THE MARCH EXAMINATION OF APPLICANTS FOR REGISTRATION AS PHYSICIANS IN MASSACHUSETTS

REGISTERED

Millen, Maurice, 18 Norfolk Avenue, Roxbury, Middlesex, 1922.
Haggerty, Francis Ignatius, 120 South Street, Chicago, Jefferson, 1923.
Secondari, Epaminonda, 43 Kendall, Lawrence, Univ. of Rome, 1914.
Fisher, Virgil Luther, Mt. Vernon, Ohio, Am. Med. Missionary, 1906, Chicago, Ill.
Davidoff, Reuben Benjamin, 135 University Rd., Brookline, Columbia P. & S., 1922.
Ogilvie, John Horn, 175 Pilgrim Rd., Boston, Harvard, 1921.
Gardner, Stuart Needham, Salem Hospital, Salem, Harvard, 1923.
Wolff, Louis, 104 Hemenway Street, Boston, Harvard, 1922.
Copeland, Newall, 798 North Street, Pittsfield, McGill, 1922.
Baehr, Frank Herman, Boston City Hospital, Boston, Univ. of Vt., 1922.
Brewster, James Hiram, Rhode Island Hospital, Providence, R. I., Univ. of Penn., 1923.
Menns, Paul Howard, 576 Washington Street, Dorchester, Harvard, 1922.
Carter, Peter Jacob, Franktown, Va. (Box 41), Middlesex, 1922.
Moskowitz, Joseph Louis, Beth Israel Hospital, Roxbury, Tufts, 1923.
Holt, Earl Kendall, 4501 Iowa Avenue, N. W., Washington, D. C., Indiana Univ., 1914.
Gauthier, Henri Edouard, Ferry Street, Fisherville, Jefferson, 1923.
Sosunn, Merrill Clary, 721 Huntington Avenue, Boston, Johns Hopkins, 1917.
O'Connell, Maurice Francis, Boston City Hospital, Boston, Mass., Yale, 1922.
Mendenhall, Walter Leslie, 9 Acacia Street, Cambridge, Drake Univ., 1906.
Reynolds, George Stoddard, Massachusetts General Hospital, Boston, Columbia P. & S., 1921.
Friedman, Clarence Falls, Boston City Hospital, Boston, Vanderbilt, 1921.
Vance, Robert Glass, Jr., Massachusetts General Hospital, Boston, Univ. of Va., 1922.
Mason, Robert Leonard, Massachusetts General Hospital, Boston, Harvard, 1922.
LaFond, Dolor Joseph, 2121 Pleasant Street, Fall River, Univ. of Tenn., 1919.
Murphy, Brendan William, Ellis Hospital, Schenectady, N. Y., McGill, 1923.
Kinmouth, Raymond Arnold, Wrentham State School, Wrentham, Tufts, 1921.
Findlay, Frances McRae, Massachusetts General Hospital, Boston, Harvard, 1922.

REJECTED

St. Louis P. & S., 1921.
Middlesex, 1923.
Tufts, 1923.

Middlesex, 1923.
St. Louis P. & S., 1923.
Mass. Ost., 1923.
Pa. Ost., 1923.
St. Louis P. & S., 1923.
Athena Univ., 1922.
St. Louis P. & S., 1923.
Univ. of Ottoman, 1917.
St. Louis P. & S., 1923.
Middlesex, 1922.
Am. Medical Univ., Beirut, Syria, 1911.
Am. Medical Univ., Beirut, Syria, 1912.
Imperial Univ. St. Vladimir, Kiev, Russia, 1912.
Imperial Univ., Moscow, Russia, 1916.
Middlesex, 1923.
Univ. of Naples, 1919.
McGill Univ., 1916.

Whole number examined	49
Registered	27
Rejected	20
On the table to be considered later	2

Correspondence

CITY OF BOSTON HEALTH DEPARTMENT

April 1, 1924.

Mr. Editor:

The late Dr. Philip Castleman, deputy commissioner, Laboratory Division, Boston Health Department, died as the result of an accident which occurred at the corner of Massachusetts and Commonwealth Avenues, Boston, late last night, an automobile injuring him so severely as to cause his death early this morning. I am sending you the following history.

Dr. Philip Castleman, residence, 483 Beacon Street, Boston, was born in Russia May 17, 1882. He was a graduate of Boston English High School and the Massachusetts Institute of Technology, and spent two years at Lawrence Scientific School, Harvard University, from which he received B.S. degree in 1906. He also received the degrees of M.S. and M.D. from George Washington University in 1911. He was instructor at Harvard Medical School and at Massachusetts Institute of Technology. For five years he was employed in the bio-chemic division of the Interior Department of the U. S. Government, and for one year was in charge of the Indian Reservation Hospital in medical work in the U. S. Department of the Interior. In 1913, he was appointed a bacteriologist in the Boston Health Department, and in 1914 was promoted to the position of Assistant Director, and in 1915, as Director, of the Bacteriological Laboratory of the Health Department. In 1917 he was appointed Deputy Commissioner in charge of the Laboratory Division of the Health Department.

Dr. Castleman is survived by one son. Dr. Castleman's connections with the various medical and fraternal organizations was as follows: Member of the Massachusetts Association of Boards of Health, the American Public Health Association, the American Society of Bacteriologists, the American Medical Association, the Massachusetts Medical Society, the Suffolk Medical Society, the Boston Bacteriologists' Club, the Technology Club, the New Century Club, the Boston Lodge of Elks; and was the Founder and President of the Greater Boston Medical Society, the Chairman of the People's Relief Society, on the hospital staff of the Beth Israel Hospital, and one of the Board of Directors of the Federated Jewish Charities.

During Dr. Castleman's service in the Health Department he showed marked aptitude for his specialty, bacteriology. His keen interest in operating the laboratory to the best interests of the physicians of the community evidenced itself in an untiring ef-

fort to improve methods of examination, by conducting research investigations, and comparing his methods with those of other well recognized laboratories. A keen grasp of preventive medicine, and a natural intelligence and ability, found in him a combination of knowledge that ably fitted him for his profession. Though he was a serious man, and a strict disciplinarian, Dr. Castleman had a very likeable personality.

Very truly yours,
F. X. MAHONEY,
Health Commissioner.

THE VOLSTEAD ACT AND THE PHYSICIAN

Mr. Editor:

The remarks of President Bigelow regarding the enactment of State laws concurrent with the Federal for the enforcement of the Volstead Act, made at the last meeting of the Council and published in the JOURNAL of February 28th, deserve careful consideration, not only because of their source but because they raise some interesting questions regarding our form of government.

The Eighteenth Amendment, though only a misplaced police regulation, automatically abrogated all State laws not in harmony with it. The Volstead Act, which is the interpretation which the Congress then in session happened to put upon it, made the enforcement of its provisions the business of the Federal Government, similar to that of enforcing laws which regulate our customs. It could not compel the States to pass concurrent laws nor did it deprive them of the right to protect their own police from the corrupting influences which have undermined the morale of the Federal prohibition forces. A negative vote on the referendum next November implies no lack of sympathy with law enforcement, but is simply an expression of opinion that there are better ways of promoting the cause of temperance than those now in operation, in the only way which the tactics of the prohibitionists, now in control of our legislators, permit.

Incidentally, President Bigelow may have noticed, if he has read the reports of the meetings for law enforcement which have been recently held and which appear to be chiefly a form of Prohibition propaganda, that little interest is ever expressed in law enforcement *per se*, but only in that of a particular act, and that many of those responsible for the meetings are most vehement in their denunciation of our courts for not railroading those accused of violation of the Volstead Act directly to jail in defiance of laws which they have sworn to uphold.

With the exception of those who have benefited peculiarly from it, the Eighteenth Amendment as interpreted by the Volstead Act has affected more vitally the interests of physicians and patients than of any other members of the community. A legislative body, without knowledge of the subject, has pronounced on the uselessness of alcohol as a drug, has prescribed its dosage, and has compelled the violation by the physician of the confidences of his patient in order to secure even the amount which is allowed. The conscientious physician with the best interests of his patient at heart is therefore compelled in cases where his experience has taught him that alcohol, in amounts greater than those legally permissible, is a useful or even necessary drug, either to bootleg himself, to encourage his patient to bootleg, or to allow the interests of his patient to suffer from the lack of it. In the latter case he may attempt to console himself with the thought that a minority of the profession believe that it is therapeutically valueless, but such consolation is not convincing when he suspects that the doubt of its therapeutic efficiency is largely based on sentiment, more or less carefully worked up, rather than on proof deduced from scientific experiment or clinical experience. The discussion of the enforceability of a law which creates

a crime and incites to criminality appears to most physicians, in this neighborhood at least, as academic rather than practical, and he would prefer to devote his efforts in ways which seem likely to be of value in combating the evil of alcoholism, whose effects he is better able to appreciate than members of any other profession. He is equally qualified to estimate the demoralization which has followed the passage of the Volstead Act in places where the weight of public opinion, which does not necessarily mean a majority of the voters, is against it. The ridiculous and incongruous association of the church and bootleggers in efforts to keep the Prohibition laws on our statute books has weakened the position of the former as leaders of moral reform, while a recent incident makes one wonder if the higher officers of the Anti-Saloon League are beginning to seek protection from the temptations of Prohibition behind prison bars. Individual members of the clerical, legal and medical professions, realizing that enforcement is impossible, have demanded repeal or modification of the present laws, which have practically resulted in the unrestricted sale of alcohol, and the substitution of methods which promise some measure of reform, but no profession is so well fitted as the medical to assume leadership in this movement and the time is ripe to make such a movement effective. Private conversations with physicians in this part of the State have discovered an almost unanimous opinion that present conditions are not only intolerable but dangerous, and I am told, though I have only hearsay evidence to rely on, that the same sentiment exists in other parts of the State outside of small rural communities. A collective expression of this opinion through district societies, or better through the Massachusetts Medical Society itself, coming from a body of men to whom the public is accustomed to look for wise advice, would be a powerful agent toward the repeal or modification of an ill-considered act which by weakening the respect for all law has proved the greatest mistake ever committed by our government. It is said, perhaps libelously, of our Legislatures that Prohibition has no enemies on the floor and no friends in the cloak room. Are the members of the medical profession as lacking in courage as our legislators to publicly express their opinion and to demand that their rights as physicians be respected?

GEORGE G. SEARS, M.D.

NOTICES

INSTITUTE FOR NURSES

The Boston Tuberculosis Association in co-operation with the Massachusetts Department of Public Health has continued the good work of former years by giving its third annual Institute for Nurses. An all-day meeting was held in the hall of the New England Women's Club, 535 Boylston Street, Copley Square, on Tuesday, April 9. Luncheon served at 12:15 p.m. Following is the program of the Institute:

MORNING SESSION 10 a.m. to 12 m.

Dr. Sumner H. Remick, Director Division of Tuberculosis, Massachusetts Department of Public Health, Chairman.

Mr. Robert V. Spencer, Executive Secretary, Massachusetts Tuberculosis League, "Work of Massachusetts Tuberculosis League."

Dr. Henry D. Chadwick, Superintendent Westfield State Sanatorium, "Tuberculosis in Children."

Dr. Cleveland Floyd, Director of Clinics, Boston Sanatorium, Out-Patient Department, Discussion.

Dr. Eugene R. Kelley, Commissioner Massachusetts Department of Public Health, "Plans for the Ten-Year Examination of School Children."

Dr. John B. Hawes, 2d., President, Boston Tuberculosis Association, "The Private Agency in Relation to the Problem of Tuberculosis in Children."

GENERAL DISCUSSION

AFTERNOON SESSION
2:00 p.m. to 4:00 p.m.

Miss Bernice W. Billings, Executive Secretary, Boston Tuberculosis Association, Chairman.

Miss Cecelia Lemmer, Supervisor of Nurses, Tuberculosis Division Massachusetts Department of Public Health, "Value of Record Keeping."

Mrs. Zepha Morse, Superintendent of Nurses, Boston Sanatorium, Out-Patient Department, Discussion.

Miss Margaret Weir, Executive Secretary, Public Health Dispensary Commission, Beverly, "Family Problem in Tuberculosis Nursing."

Mrs. Mary McGee, Superintendent of Nurses, Visiting Nurse Association, Brockton, "Work of the Tuberculosis Nurse."

Mrs. Anna M. Wright, Field Secretary, Boston Tuberculosis Association, "Occupations for Consumptives."

GENERAL DISCUSSION

CENSORS' MEETING

The censors of the Suffolk District Medical Society will meet for the examination of candidates at the Medical Library, No. 8 The Fenway, Thursday, May 1, 1924, at 4:00 o'clock.

Candidates should make personal application to the Secretary, and present their medical diploma at least one week before the examination.

LESLIE H. SPOONER,
Secretary.

520 Commonwealth Avenue.

NEW ENGLAND PEDIATRIC SOCIETY

The eighty-fifth meeting of the New England Pediatric Society will be held at the Boston Medical Library on Friday, April 11, 1924, at 8:15 p.m. The following papers will be read:

1. Pigment and Iron in the Infant's Diet—Their Relation to Allimentary Anemia.

Lewis Webb Hill, M.D., Boston.

2. Mortality in the Surgical Diseases of Children.

George D. Cutler, M.D., Boston.

3. Certain Aspects of Calcium Metabolism in Infants.

Bengt L. K. Hamilton, M.D., Stockholm.

Light refreshments will be served after the meeting.

EDWIN H. PLACE, M.D., President.
JOSEPH GARLAND, M.D., Secretary.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces open competitive examinations for physiotherapy aide and physiotherapy pupil aide.

The duties of physiotherapy aides consist of administering physiotherapy in its several branches—massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy; active, passive, resistive, and assistive exercises and remedial gymnastics; keeping daily record of the work and progress of each and every patient coming under direction and treatment; and making the required reports of the activities of the reconstruction work in physiotherapy.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil-service examiners, at the post office or customhouse in any city.

DISEASES REPORTED TO MASSACHUSETTS
DEPARTMENT OF PUBLIC HEALTH

WEEK ENDING MARCH 15, 1924

Disease	No. of Cases	Disease	No. of Cases
Anterior poliomyelitis	3	Pneumonia, lobar	133
Chicken-pox	244	Scarlet fever	488
Diphtheria	140	Septic sore throat	11
Dog-bite requiring anti-rabic treatment	3	Syphilis	61
Epidemic cerebrospinal meningitis	1	Suppurative conjunctivitis	22
German measles	51	Trachoma	2
Gonorrhea	98	Tuberculosis, pulmonary	117
Influenza	8	Tuberculosis, other forms	24
Measles	957	Typhoid fever	4
Mumps	447	Whooping cough	87
Ophthalmia neonatorum	10		

DISEASES REPORTED TO MASSACHUSETTS
DEPARTMENT OF PUBLIC HEALTH

WEEK ENDING MARCH 22, 1924

Disease	No. of Cases	Disease	No. of Cases
Anterior poliomyelitis	3	Ophthalmia neonatorum	21
Chicken-pox	252	Pneumonia, lobar	118
Diphtheria	163	Scarlet fever	476
Dog-bite requiring anti-rabic treatment	15	Septic sore throat	14
Encephalitis lethargica	2	Syphilis	48
Epidemic cerebrospinal meningitis	4	Suppurative conjunctivitis	15
German measles	42	Tuberculosis, pulmonary	137
Gonorrhea	85	Tuberculosis, other forms	31
Influenza	13	Typhoid fever	4
Measles	983	Whooping cough	114
Mumps	426		

SOCIETY MEETINGS

DISTRICT SOCIETIES

Bristol South District Medical Society:

The annual meeting will be held in New Bedford, May 1, 1924.
Essex North:—Annual meeting at Lawrence General Hospital, May 7, 1924.

Essex South District Medical Society:

May 7, 1924:—Annual meeting, Relay House, Nahant, in conjunction with Lynn Medical Fraternity.

Franklin District:—Society meets at Greenfield the second Tuesday of March, May, July, September.

Annual meeting in May.
Hampden District:—The meetings for the year are as follows:
April, 1924, at Springfield; annual meeting.

Hampshire District Medical Society:

Meetings held bi-monthly, the second Wednesday in the month, at Boyden's Restaurant, Northampton.

Middlesex South District Medical Society:

April, 1924:—Annual meeting.

Norfolk South District:—Meetings first Thursday of each month at 11:30 a. m., April and May, at United States Hotel, Boston. The May meeting is a stated meeting.

Suffolk District Medical Society:
April 30, 1924:—Annual meeting to be held at the Boston Medical Library at 8:15 p. m.

Worcester District:—The meetings for the year are as follows:

April 10—A public meeting.

May 8—Annual meeting.

STATE, INTERSTATE AND NATIONAL SOCIETIES

May 1-3:—American Climatological and Clinical Association will meet at The Ambassador, Atlantic City, for its annual convention.

June 3 and 4:—American Urological Association at Ambassador Hotel, Atlantic City, N. J.